July 23, 2012

Ms. Jennifer Price
County of San Diego
Department of Parks and Recreation
5500 Overland Avenue, Suite 410
San Diego, California 92123

Subject: **Biological Resources Letter Report for the Flume Trail Project (ICF 00026.12)**

Dear Ms. Price:

ICF International (ICF) was retained to conduct biological surveys and prepare a Biological Resources Letter report for the proposed Flume Trail, located within the approved South County Subarea Plan of the County's Multiple Species Conservation Program (MSCP). This letter report analyzes potential effects on sensitive biological resources associated with construction of the proposed trail.

SUMMARY

The proposed Flume Trail Project (project) would construct approximately 2.5 miles of trail generally within an existing 10-foot wide bench cut of the 50-foot wide, County-owned parcel of the historic flume alignment. When necessary to avoid or minimize impacts to sensitive resources, the trail is routed within an additional 20-foot-wide trail easement located immediately adjacent to the southern boundary of the historic flume alignment. The construction and maintenance of the proposed project will involve vegetation removal and trimming as well as some minor grading and ground disturbance. Brush management requirements for the proposed project will consist of a minimum of two feet on either side of the existing bench cut. The impact footprint for the proposed project is a 10-foot wide area.

The County has identified two project alternatives. The first alternative involves the proposed trail alignment but would include the construction of a structural crossing at Drainage #7. The second alternative would deviate from the proposed alignment near Drainages #7 and #8, where the trail would head north outside of the County-owned easement. This alternative would require acquisition of additional easements from adjacent property owners. Biological surveys were not conducted on private property; however vegetation type was identified through aerial photographs and ground truthing of adjacent habitat type.

The following sensitive vegetation communities would be directly impacted by the proposed trail alignment: Diegan coastal sage scrub (1.78 acres), coast live oak woodland (0.09 acre), non-native grassland (0.30 acre) and southern mixed chaparral (0.91 acre). If the structural crossing is

constructed across Drainage #7, impacts to coast live oak woodland would be slightly reduced. Construction of the alternative trail alignment would result in impacts to 1.76 acres of Diegan coastal sage scrub, 0.08 acre of coast live oak woodland, 0.30 acre of non-native grassland, and 0.93 acre of southern mixed chaparral. Coast live oaks would not be removed during brush clearing and their root zone would not be disturbed as trail construction in these areas will be achieved by hand. Impacts to sensitive vegetation communities will be mitigated through the offsite preservation of habitat, the purchase of mitigation credits within an approved mitigation bank, or in accordance with County Board Policy I-138 at the following ratios: 1.5:1 for Diegan coastal sage scrub; 1:1 for southern mixed chaparral, and 0.5:1 for nonnative grassland.

Focused surveys for special-status plant species were not conducted; however, one special-status plant species (County List A) was detected within the proposed impact area during the general biological surveys: delicate clarkia (*Clarkia delicata*). Direct impacts to approximately 10 individuals of delicate clarkia could occur through vegetation removal and ground disturbance activities. Impacts to delicate clarkia resulting from the two project alternatives would be identical to those of the proposed project. In addition, if present within the project area, other special-status plant species may be removed as a result of vegetation removal and grading activities. Impacts to special-status plant species, including delicate clarkia, could be avoided during final trail design and construction. If avoidance is not feasible, impacts to County List A and B species will not exceed 20% of the population on-site and impacts to County List C and D species will be mitigated on a habitat-basis as required by the County's Biological Mitigation Ordinance (BMO). Therefore, the potential minimal impacts resulting from the proposed project would not impact the regional long-term survival of special-status plant species in the project area. For example, delicate clarkia has been observed within the El Monte County Park along the San Diego River (Jones and Stokes, 2008).

Special status wildlife species observed or detected within the survey area include coastal western whiptail (*Aspidoscelis tigris multiscutatus*), turkey vulture (*Cathartes aura*), Cooper's hawk (*Accipiter cooperii*) and southern mule deer (*Odocoileus hemionus*). The project's impacts to suitable habitat for these species total approximately 3.14 acres. Such impacts would not affect the regional long-term survival of these fairly widespread species. To avoid and minimize potential impacts to special-status species, pre-construction training for construction crews will be conducted to address sensitive species that occur or have potential to occur along the proposed trail.

A total of 12 ephemeral drainage features were identified along the proposed alignment of the Flume Trail, all of which were determined to be non-wetland waters under the joint jurisdiction of the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, and the California Department of Fish and Game. Construction of the proposed trail would result in a total of 340 square feet of impacts to these drainage features. If a structural crossing is constructed a Drainage #7, impacts to approximately 30 square feet would be avoided, for a total impact of 310 square feet. Alternatively, if additional trail easements are obtained and the alternative trail alignment near Drainage #7 and #8 is constructed, impacts to approximately 30 square feet would be avoided as the proposed crossing would occur downstream where Drainages #7 and #8 merge into one 4-foot-wide feature. Impacts to jurisdictional drainage features associated with trail use may require a nationwide 404 permit from the USACE, a Water Quality Waiver or 401 Certification from the RWQCB, and a CDFG section 1602

Streambed Alteration Agreement. However, as the project would not result in the net loss of jurisdictional resources and will not alter the biological functions and values of the drainage features, compensatory mitigation is not anticipated to be required.

The construction of the proposed project could result in impacts to sensitive vegetation communities and plant species through increasing human access to the site. The proposed Flume Trail connects to the County's El Monte County Park Trail, located within El Monte County Park. A Resource Management Plan (RMP) has been prepared for El Monte County Park (County of San Diego 2009), which identifies Area-Specific Management Directives aimed at preserving and enhancing biological resources within El Monte County Park. Ongoing maintenance and monitoring of the proposed Flume Trail will occur during implementation of the El Monte County Park RMP. The proposed Flume Trail will be patrolled by Park Rangers who will identify unauthorized trial use or other adverse effects associated with increased human use (e.g., trash). Such issues will be addressed through construction of fence segments, installation of signs, or other means to prevent ongoing impacts.

The project area provides suitable habitat for nesting birds and raptors and the proposed project could impact the nesting success of tree- and/or ground-nesting raptors if grading, clearing, or other noise generating activities would occur during their breeding season, defined as January 15 to July 15 and February 1 to July 31, respectively. In order to mitigate potentially significant impacts to nesting success of wildlife species, vegetation clearing or grading shall be restricted during the breeding season unless pre-construction surveys by a qualified biologist determine no nesting birds or raptors would be impacted by the proposed work. If active nests are identified within the impact area, vegetation clearing activities shall not occur within 300 feet of active bird nests, 500 feet of tree-nesting raptor nests, and 800 feet of ground-nesting raptor nests until either the breeding season has ended or the nest is no longer active.

While the coastal California gnatcatcher was not observed during any of the biological surveys, the construction of the proposed project would result in impacts to marginally suitable habitat for this species (burned coastal sage scrub) and suitable habitat for this species occurs in the project vicinity. In order to reduce potential impacts to the California gnatcatcher, all brushing, clearing and/or grading will be restricted (i.e., none will be allowed) within 300 feet of coastal sage scrub habitat during the breeding season of the California gnatcatcher (March 1 – August 15). The Director of Parks and Recreation may waive this conditions, through written concurrence from the U.S. Fish and Wildlife Service and the CDFG that no California gnatcatchers are present within the vicinity based on a pre-construction survey conducted within one week of project initiation.

PROJECT DESCRIPTION, LOCATION, AND SETTING

Project Location

The proposed project would connect to the recently constructed El Monte County Park Trail, located in the County's El Monte County Park in Lakeside, California (Figures 1 and 2; Attachment 1). The El Monte County Park Trail is located south of El Monte Road, approximately 3.5 miles northeast of the intersection of El Monte Road and Lake Jennings Park Road. The

proposed project is located within the approved South County Subarea Plan of the County's Multiple Species Conservation Program (MSCP).

Project Description

The proposed Flume Trail Project (project) would construct approximately 2.5 miles of trail generally within an existing 10-foot wide bench cut of the 50-foot wide, County-owned parcel of the historic flume alignment. Where necessary to avoid or minimize impacts to sensitive resources, the trail is routed within an additional 20-foot-wide trail easement located immediately adjacent to the southern boundary of the historic flume alignment. The construction and maintenance of the proposed trail will involve vegetation removal and trimming as well as some minor grading and ground disturbance. Brush management requirements for the proposed project will consist of a minimum of two feet on either side of the existing bench cut. The impact footprint for the proposed trail and associated brush clearing consists of a 10-foot wide area.

The County has identified two project alternatives. The first alternative involves the proposed trail alignment but would include the construction of a structural crossing at Drainage #7. The second alternative would deviate from the proposed alignment near Drainages #7 and #8, where the trail would head north outside of the County-owned easement. This alternative would require acquisition of additional easements from adjacent property owners.

Study Methods

Prior to conducting surveys for the proposed project, searches of available literature and databases were conducted to determine sensitive species previously detected or with potential to occur in the survey area as well as the physical characteristics of the site and surrounding areas. Available data that were reviewed included the California Natural Diversity Database (CNDDB; CNDDB 2012; El Cajon Mountain, San Pasqual, El Cajon, Ramona, Alpine, Santa Ysabel, Tule Springs, San Vicente, and Viejas Mountain quadrangles), the U.S. Department of Agriculture (USDA) soil survey of the area (USDA 1973), U.S. Geologic Survey (USGS) topographic maps to identify potential stream courses and other notable topographic features, and the baseline biodiversity report prepared for El Monte County Park (Jones & Stokes 2008).

The survey area for the proposed project consists of the 50-foot-wide County-owned parcel, adjacent 20-foot-wide trail easement, and a 100-foot buffer on either side of this 70-foot-wide areas (for a 270-foot-wide survey area). However, legal access has only been granted for the 70-foot-wide area consisting of the 50-foot-wide historic flume alignment and the 20-foot-wide trail easement. Therefore, biological information collected for the additional areas within the 270-foot-wide survey area was completed through the use of aerial photographs and visual inspection from within the 70-foot-wide area.

Surveys were conducted to categorize and map the plant communities within the survey area, to delineate the extents of jurisdictional features, and to assess the habitat suitability for special-status plant and animal species (Table 1). The survey area was traversed along the existing Flume Trail bench cut in an effort to accurately categorize vegetation communities and to identify the locations of

any sensitive species readily detectable. Vegetation communities were mapped on a 300 -foot scale aerial photograph in the field and later digitized into a geographic information system (GIS) coverage using ArcGIS software. General habitat mapping and vegetation communities were categorized using standard County classifications (Oberbauer 2008). All plant species observed were noted, and plants that could not be verified in the field were identified later using Baldwin (2012). Plants without diagnostic structures present were identified to species level. Animal species were detected through direct observation or from calls, tracks, scat, nests, or other signs. ICF Biologists Dale Ritenour and Erin Schorr conducted a site visit on January 20, 2012, and Mr. Ritenour and Douglas Allen conducted biological surveys on May 21, 2012 (Table 1).

Table 1. Survey Dates and Conditions

Date	Time	Biologist(s)	Survey Type
1-20-12	0800-1400	ES, DR	General survey, Site Meeting
5-21-12	0830-1700	DR, DA	General survey, jurisdictional delineation, vegetation mapping

ES – Erin Schorr; DR – Dale Ritenour; DA– Doug Allen

During the surveys, sensitive plant species observed were mapped using a sub-meter accurate global positioning system (GPS). Groups of individuals were mapped as single points with attribute data including total individuals observed. However, the survey effort did not include focused rare plant surveys.

During the general wildlife survey, all wildlife species observed or detected during the field survey by sight, vocalizations, burrows, tracks, scat, or other signs were recorded. Binoculars (8 x 42 power) were used to aid in the identification of observed wildlife. In addition to species actually observed, expected wildlife use of the site was determined by known habitat preferences of local species and knowledge of their relative distributions in the vicinity of the proposed project area. The survey effort did not include focused surveys for special-status wildlife species.

Due to the timing of the surveys, some plants and migrating/summer breeding birds may not have been detected during the surveys. Nocturnal wildlife species would also not have been readily detected as only daytime surveys were conducted. Complete lists of plant and wildlife species observed within the project area are provided as Attachments 2 and 3, respectively.

Environmental Setting

The proposed trail runs in an east-west direction within an existing bench cut along the 50-foot-wide County-owned historic flume alignment. The flume alignment is located along the north/northwest-facing slope approximately 1,000 feet south of El Monte County Park. Surrounding land uses include El Capitan Mountain and the El Capitan Reservoir to the east, portions of the El Capitan Preserve to the north and west, and sparse residential development associated with the communities of Blossom Valley to the south and Lakeside to the southwest. Elevations along the trail alignment range from

approximately 650 feet above mean sea level (AMSL) to 900 feet AMSL. The project area was accessed via the El Monte Trail head that is located in the southwest corner of El Monte County Park.

The north-facing slope which the proposed trail runs along, located immediately south of the El Monte County Park, is dominated by burned Diegan coastal sage scrub and southern mixed chaparral. Areas along the slope burned in the 2003 Cedar Fire and are regenerating with native vegetation. The bench cut of the historic flume alignment was previously cleared of vegetation; however, it is currently overgrown. The proposed alignment of the Flume Trail traverses through non-native grasslands, coast live oak woodlands, burned and unburned southern mixed chaparral, burned coastal sage scrub, and disturbed habitat. Riparian vegetation communities were not observed within or immediately adjacent to the 70-foot-wide survey area.

The proposed trail alignment is underlain by Cieneba-Fallbrook rocky sandy loam (30-65% slopes, eroded) and Cieneba coarse sandy loam (30-65% slopes, eroded) (Figures 3a-3e). The Cieneba series, as defined by the U.S. Department of Agriculture (USDA 1973), is discussed below.

The ***Cieneba*** soil series is characterized as excessively drained very shallow to shallow, course sandy loams and is usually found on slopes ranging from 5 to 75 percent. It is found on uplands at elevations ranging from 61–914 meters (200-3,000 feet). It is usually 25.4 to 50.8 centimeters (10 to 20 inches) thick and medium acidic. The topsoil ranges from brown to dark brown in color and course sandy loam to sandy loam in texture. The layer below this consists of weathered granodiorite. Runoff is high to very high and the erosion hazard is very high. Boulders and rock outcrops are present. Specific soil types found in the survey area consist of Cieneba Rocky Coarse Sandy Loam (9 to 30 percent slopes, eroded).

Regional Context

The proposed project is located within the approved South County Subarea Plan of the County's MSCP within a mapped Pre-Approved Mitigation Area (PAMA) (Figure 2). The project area abuts large preserve areas such as the Cleveland National Forest, the El Capitan Preserve, and the County's El Monte County Park; a Resource Management Plan has been prepared for El Monte County Park. Patches of Unincorporated Land within the Metro-Lakeside-Jamul Segment of the MSCP occur in the immediate project vicinity.

HABITAT & VEGETATION COMMUNITIES

Vegetation communities present within the 50-foot wide County-owned historic flume alignment and the adjacent 20-foot-wide trail easement consist of burned and unburned southern mixed chaparral, burned coastal sage scrub, coast live oak woodland, non-native grassland, disturbed habitat, urban/developed land and agricultural land (Figures 4a-4e, Table 2). A description of the vegetation communities and the dominant plant species detected during the survey are found below.

Table 2. Vegetation Communities within the Survey Area

Vegetation/Land Cover Type	Habitat Tier	Acreage
Southern Mixed Chaparral (including burned)	III	6.24
Diegan Coastal Sage Scrub (burned)	II	11.86
Coast Live Oak Woodland (including open)	I	0.54
Non-native Grassland	III	2.47
Disturbed Habitat	IV	0.14
Urban/Developed	N/A	0.07
Total		**21.32**

Southern Mixed Chaparral (37120)

Southern mixed chaparral, a Tier III vegetation community, consists of broad-leaved sclerophyllous shrubs approximately 1.5 to 3 meters tall. This habitat may include patches of bare soil, and sometimes forms a mosaic with coastal sage scrub or Riversidian sage scrub. Portions of the southern mixed chaparral on site were burned in the Cedar Fire in October 2003. The vegetation community has not fully recovered since the fire and shrubs are generally more sparse and shorter (0.5 to 2.0 meters) than more mature stands of mixed chaparral. Dominant plants occurring within the survey area include scrub oak (*Quercus berberidifolia*) and mission manzanita (*Xylococcus bicolor*).

The southern mixed chaparral located within the survey area has a moderate ecological value. Southern mixed chaparral provides nesting and foraging habitat for several wildlife species, and can contain rare plant species. This habitat is considered a sensitive vegetation community in San Diego County.

Diegan Coastal Sage Scrub (32500)

Diegan coastal sage scrub is a native habitat type composed of a variety of soft, low, aromatic shrubs characteristically dominated by drought-deciduous species such as California sagebrush, California buckwheat, and sages (*Salvia* spp.), with scattered evergreen shrubs including lemonadeberry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), and toyon (*Heteromeles arbutifolia*). It typically develops on south-facing slopes and other xeric situations (Holland 1986). The Diegan coastal sage scrub occurring within the survey area is of moderate to high ecological value and is dominated by laurel sumac (*Malosma laurina*), California sagebrush (*Artemisia californica*), and California buckwheat (*Eriogonum fasciculatum*).

Diegan coastal sage scrub is considered a Tier II sensitive vegetation community in San Diego County and provides habitat for a variety of sensitive plant and wildlife species.

Coast Live Oak Woodland (71160)

Coast live oak woodland is typically dominated by coast live oak trees (*Quercus agrifolia*) that reach 30 to 80 feet (9 to 24 meters) in height. The shrub layer within this habitat is usually poorly developed but may include toyon (*Heteromoles arbutifolia*), laurel sumac (*Malosma laurina*) or poison oak (*Toxicodendron diversilobium)*, while the herb layer is continuous and typically dominated by non-native grasses. This community typically occurs on north-facing slopes and shaded ravines in southern California (Holland 1986). Coast live oak and poison oak were the dominant plant species in areas mapped as coast live oak woodland.

The coast live oak woodland located within the survey area has a high ecological value. Oak woodlands are considered a Tier I sensitive habitat type and provide nesting habitat and valuable cover for a wide range of wildlife species. The oak woodland within the survey area provides suitable nesting habitat for several species of raptors and other birds. This habitat type is considered a sensitive vegetation community by the County and the State. One sensitive plant, delicate clarkia (*Clarkia delicate*), was observed within the coast live oak woodland in the survey area.

Nonnative Grassland (42200)

Nonnative grassland, a Tier III vegetation community, is characterized by a dense to sparse cover of annual grasses reaching up to 1 meter (3 feet), which may include numerous native wildflowers, particularly in years of high rainfall. These annuals germinate with the onset of the rainy season and set seeds in the late spring or summer. This community is usually found on fine-textured soils that range from being moist or waterlogged in the winter to being very dry during the summer and fall (Holland 1986). Nonnative grasslands, in many circumstances, have replaced native grasslands as a result of disturbance (manmade [i.e. mechanical disturbance] or natural [i.e. fire]). Dominant species that characterize the nonnative grassland within the survey area include slender wild oat (*Avena barbata*), ripgut grass (*Bromus diandrus*) and compact brome (*Bromus madritensis ssp. madritensis*).

The nonnative grassland located on-site has a moderate to low conservation value. It occurs as patches scattered throughout the survey area, some of which occurs as a result of type conversion after the 2003 wildfire. This community is considered sensitive by the County.

Disturbed Habitat (11300)

Disturbed habitat within the survey area consists of existing dirt roads and maintained or frequently used trails that intersect with the proposed trail alignment. This land cover type is classified as Tier IV and has limited ecological value due to lack of natural habitat elements. This land cover type is not considered sensitive by any local, state, or federal agencies.

Developed Land (12000)

Developed land within the survey area consists of an existing residence along the north side of the alignment. This land cover type has a low ecological value due to the lack of natural habitat elements. This land cover type is not considered sensitive by any local, state, or federal agencies.

SPECIAL STATUS SPECIES

The following section discusses special status species observed or detected within the survey area, as well as special status species with potential to occur. A special status species is one that is listed by federal or state agencies as threatened or endangered; listed on the California Rare Plant Ranking (Formerly California Native Plant Society List [i.e., CRPR 1, 2, 3, and 4 Plant Species]); or is included on the County's Sensitive Plant (Group A, B, C, or D Listed Plants) or Animal (Group I and II) list.

SPECIAL STATUS PLANT SPECIES

The CNDDB search, CNPS search, and field surveys identified 81 sensitive plant species that occur or have potential to occur in the project vicinity (Attachment 4). The CNDDB and CNPS searches were conducted for the El Cajon Mountain, San Pasqual, El Cajon, Ramona, Alpine, Santa Ysabel, Tule Springs, San Vicente, and Viejas Mountain quadrangles (CNDDB 2012; CNPS 2012). One special status plant species was detected within the survey area: delicate clarkia. Special status plant species identified during the literature search are outlined in Attachment 4, along with their potential to occur within the survey area. Discussions of the plants species incorporate information from Reiser (2001) and Baldwin (2012).

Special Status Plant Species Observed

Delicate clarkia (*Clarkia delicate*) is a CRPR 1B and County List A species. It is an annual wildflower that is typically found on the periphery of oak woodland habitats and within cismontane chaparral at elevations ranging from 235 and 1000 meters AMSL (770 and 3280 feet AMSL). Scattered individuals of delicate clarkia were found within the proposed project alignment in the shaded understory of the coast live oak woodland (Figures 5a-5e).

SPECIAL STATUS WILDLIFE SPECIES

The CNDDB search and field survey identified 40 sensitive wildlife species that occur or have potential to occur in the project vicinity (Attachments 3 and 4). The CNDDB search was conducted for the El Cajon Mountain, San Pasqual, El Cajon, Ramona, Alpine, Santa Ysabel, Tule Springs, San Vicente, and Viejas Mountain quadrangles (CNDDB 2012). Special status wildlife species detected within the survey area consist of: coastal western whiptail (*Aspidoscelis tigris stejnegeri*), turkey vulture (*Cathartes aura*), Cooper's hawk (*Accipiter cooperii*), and southern mule deer (*Odocoileus hemionus*). Sensitive wildlife species identified during the literature search are outlined in Attachment 4, along with their potential to occur within the survey area.

Special Status Wildlife Species Observed

The **coastal western whiptail** is a County Group II species associated with arid and semiarid desert habitats to open woodlands with sparse vegetation. An individual coastal western whiptail was observed along the existing bench cut during the field survey.

The **turkey vulture** is a County Group 1 species known to occur throughout San Diego County. This species was observed overhead during the general biological survey. Suitable foraging habitat for this species occurs within the survey area.

The **Cooper's hawk** is a County Group 1 and South County Subarea Plan MSCP covered species associated with riparian deciduous habitats and oak woodlands. This species was observed foraging over the survey area. Suitable foraging and breeding habitat for this species occur within the survey area.

The **southern mule deer** is a County Group 2 and South County Subarea Plan MSCP covered species known to occur throughout San Diego County. Tracks from this species were observed along the existing bench cut.

JURISDICTIONAL WETLANDS AND WATERWAYS

Wetlands and other waters are considered to be sensitive biological resources and are protected by various federal, state, and local regulations. The U.S. Army Corps of Engineers (USACE) and the Regional Water Quality Control Board (RWQCB) regulate waters of the U.S., including wetlands, under the authority of Sections 404 and 401, respectively, of the federal Clean Water Act (CWA). The term "waters of the U.S." encompasses many types of waters, including waters currently or historically used in interstate or foreign commerce; all waters subject to the ebb and flow of tides; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including ephemeral and intermittent streams), mudflats, sandflats, wetlands, sloughs, etc., the use, degradation or destruction of which could affect interstate or foreign commerce; all impoundments of waters otherwise defined as waters of the U.S.; tributaries of waters of the U.S.; territorial seas; and wetlands adjacent to waters of the U.S. (USACE 1987). Under the Porter-Cologne Act, the RWQCB's jurisdiction also includes isolated wetlands and other waters that are not jurisdictional under the CWA. The California Department of Fish and Game (CDFG) takes jurisdiction over lakes, rivers, and streams under Section 1600 et seq. of the Fish and Game Code.

The USACE defines wetlands as areas that are dominated by hydrophytic plant species, exhibit wetland hydrology, and have hydric soils. Areas that do not meet these criteria but exhibit a defined channel are considered nonwetland waters of the U.S. CDFG jurisdiction extends across the ordinary high water mark of these features and includes areas beneath a riparian canopy, even if the canopy areas are well away from the stream channel (such as in riparian areas). The RWQCB takes jurisdiction of waters of the U.S. as defined by the USACE as well as other surface waters, which include isolated wetlands (e.g., vernal pools) and stream channels.

A total of 12 ephemeral drainage features were observed to cross the proposed alignment of the proposed Flume Trail (Figures 6a-6e). The low-flow channels average approximately 2 to 5 feet wide. Based on direct observations during the field delineation, these 12 drainages were determined to clearly convey flows (at least intermittently) and they were determined not to support wetland hydrology. Therefore, based on USACE guidelines, none of the drainage features were identified as jurisdictional wetlands and are considered USACE non-wetland waters.

The 12 drainage features were determined to be unnamed tributaries to the San Diego River valley and are assumed to have direct bed-and-bank connection to the San Diego River, a relatively Permanent Water (RPW) tributary to the Pacific Ocean, a Traditionally Navigable Water (TNW). Based on the their connection to the San Diego River, the 12 drainage features would be regulated as USACE non-wetland WoUS, RWQCB WoS, and CDFG State Streambeds. A formal jurisdictional delineation was conducted for the proposed project and the Jurisdictional Delineation Report is provided as Attachment 5 to this report.

WILDLIFE CORRIDORS AND LINKAGES

Wildlife movement corridors are areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features such as canyon drainages, ridgelines, or areas with vegetative cover provide corridors for wildlife movement. Wildlife movement corridors are important because they provide access to mates, food, and water; allow the dispersal of individuals away from high population density areas, and facilitate the exchange of genetic traits between populations.

Another important consideration is the setting of a project site with respect to regional connectivity with other undeveloped lands. Large blocks of contiguous habitat are important to support resident populations of plants and wildlife as well as to provide suitable conditions for wildlife movement and dispersal.

The proposed Flume Trail is located in a relatively undeveloped area of San Diego County, occurs within a mapped Pre-Approved Mitigation Area, and abuts large preserve areas such as the Cleveland National Forest and the El Capitan Preserve. The project area occurs within the east–west trending upper San Diego River valley which provides local movement for a wide range of wildlife including mule deer, coyote, bobcat, and mountain lion. Consequently, the project area is considered to be part of a core area or regional linkage of importance.

SENSITIVE SOILS

No sensitive soils occur within the survey area.

SIGNIFICANCE OF PROJECT IMPACTS AND PROPOSED MITIGATION

Given the limited extent of the anticipated impacts to sensitive biological resources associated with the proposed project, discussions of project impacts, analysis of the significance of such impacts, and anticipated mitigation requirements are combined in this section for ease of analysis. Potential impacts to vegetation communities, sensitive plants, sensitive wildlife, and other sensitive resources such wetlands and wildlife corridors are discussed separately to follow the County's significance criteria.

IMPACT DEFINITIONS

Biological resource impacts can be considered direct, indirect, or cumulative. They will also be either permanent or temporary in nature.

- Direct: Direct impacts occur when biological resources are altered, disturbed, or destroyed during project implementation. Examples include clearing vegetation, encroaching into wetland buffers, diverting surface water flows, and the loss of individual species or their habitats.
- Indirect: Indirect impacts occur when project-related activities affect biological resources in a manner that is not direct. Examples include elevated noise and dust levels, increased human activity, decreased water quality, and the introduction of invasive wildlife (i.e., domestic cats and dogs) and plants.
- Cumulative: Cumulative impacts occur when biological resources are either directly or indirectly impacted to a minor extent as a result of a specific project, but the project-related impacts are part of a larger pattern of similar minor impacts. The overall result of these multiple minor impacts from separate projects is considered a cumulative impact to biological resources.
- Temporary: Temporary impacts can be direct or indirect and are considered reversible. Examples include the removal of vegetation from areas that will be revegetated, elevated noise levels, and increased levels of dust.
- Permanent: Permanent impacts can be direct or indirect and are not considered reversible. Examples include the removal of vegetation from areas that will have permanent structures placed on them or landscaping an area with nonnative plant species.

Potentially significant impacts to each sensitive biological resource are analyzed below. The direct project impact area is limited to a 10-foot-wide area along the proposed 2.5-mile trail, for a total of 3.14 acres. The discussion below addresses anticipated impacts resulting from development of the proposed trail (including two feet of brush clearance on either side of the trails).

SPECIAL STATUS SPECIES

Significance Criteria

A project would have a potentially significant effect on biological resources if:

> The project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Specifically, any of the following conditions would be considered significant:

A. The project would impact one or more individuals of a species listed as federally or state endangered or threatened.

B. The project would impact the regional long-term survival of a County Group A or B Plant Species, or a County Group I Animal Species, or a species listed as a state Species of Special Concern.

C. The project would impact the regional long-term survival of a County Group C or D Plant Species or a County Group II Animal Species.

D. The project may impact arroyo toad aestivation or breeding habitat.

E. The project would impact golden eagle habitat.

F. The project would result in a loss of functional foraging habitat for raptors.

G. The project would increase noise or nighttime lighting to a level above ambient proven to adversely affect sensitive species.

H. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more, not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or an area that supports multiple wildlife species.

I. The project would increase human access or predation or competition from domestic animals, pests, or exotic species to levels that would adversely affect sensitive species.

J. The project would impact nesting success of sensitive animals (as listed in the Guidelines for Determining Significance) through grading, clearing, fire fuel modification, or noise generating activities such as construction.

Analysis of Project Effects

Each of the significance criteria listed above is discussed below with respect to the proposed project's anticipated effects. Those criteria for which impacts are not anticipated are discussed briefly at the end of the section followed by mitigation measures for potentially significant impacts. Unless otherwise noted, impacts resulting from the proposed project and the two alternatives would be identical.

Sensitive Plant Impacts

A. Focused rare plant surveys were not conducted for the proposed project. While federally or state listed endangered or threatened species were not observed, there is potential for listed plant species to occur in the project area (see Attachment 4). However, the only species that have been rated with a high potential to occur would have easily been observed during the surveys. Additionally, there are no sensitive soils that would support sensitive plant species that have a moderate potential to occur. Impacts to listed species would be considered significant and would require mitigation.

B, C. Focused rare plant surveys were not conducted for the proposed project. However, one special status plant species, delicate clarkia (CRPR 1B and County List A), was observed within the survey area during the general biological survey. Approximately 10 individuals of delicate

clarkia were observed within the proposed alignment (Figures 7a-7e). Individuals of delicate clarkia may be removed as a result of vegetation removal and ground disturbance activities; however, seed banks will remain intact as no offsite fill or compaction is proposed. No other special-status plant species are likely to occur within the project area. While the full-extent of the population of delicate clarkia or other special-status plant species with potential to occur in the project area is not known, if avoidance is not feasible, impacts to County List A and B species will not exceed 20% of the population on-site and impacts to County List C and D species will be mitigated on a habitat-basis as required by the County's BMO. Therefore, the potential minimal impacts resulting from the proposed project would not impact the regional long-term survival of these species. Populations of delicate clarkia have been observed at El Monte County Park along the San Diego River. In addition, it is feasible that the final trail alignment can avoid impacts to all special-status species within the project area if trail construction is implemented at a time when delicate clarkia plants are observable.

Sensitive Wildlife Impacts

B, C. Sensitive wildlife species detected during the surveys included County Group I species: turkey vulture and Cooper's hawk and County Group II species: coastal western whiptail and southern mule deer; species listed as a state Species of Special Concern were not observed. Potential impacts to suitable habitat for these species associated with development of the proposed trail alignment would be limited to 1.78 acres of coastal sage scrub, 0.09 acre of coast live oak woodland, 0.91 acre of southern mixed chaparral, and 0.30 acre of nonnative grassland. If a structural crossing is constructed over Drainage #7, impacts to coast live oak woodland would be slightly reduced. Potential impacts to suitable habitat for these species associated with development of the trail utilizing the alternative trail alignment would include 1.76 acres of coastal sage scrub, 0.08 acre of coast live oak woodland, 0.93 acre of southern mixed chaparral, and 0.30 acre of nonnative grassland. Total direct impacts to approximately 3.14 acres of potentially suitable habitat for County Group I or II wildlife species would not impact the regional long-term survival of these fairly widespread species. Therefore, impacts to County Group I or II wildlife species would not be considered significant.

I. Construction and use of the proposed Flume Trail could result in impacts to sensitive species through increasing human access and domestic animal activity. Increased access could result in indirect impacts to undisturbed areas along the trail system associated with unauthorized activity or wildlife predation or disruption of nesting activities by domestic animals. Such impacts would be considered potentially significant.

The project would not involve introduction of invasive species (e.g., nonnative, invasive landscaping), pests, or exotic species to the site. Therefore, impacts associated with introduced exotic species are not anticipated.

J. The project area provides suitable habitat for nesting birds and raptors and the project could impact the nesting success of tree- and/or ground-nesting raptors if grading, vegetation clearing, or other noise generating activities would occur during their breeding season, defined as January 15 to July 15 and February 1 to July 31, respectively. Such impacts could result in

removal of active nests or disruption in breeding success due to disturbance of breeding behaviors. Such impacts would be considered significant.

While the coastal California gnatcatcher was not observed during any of the biological surveys, the construction of the Flume Trail would result in impacts to marginally suitable habitat for this species (burned coastal sage scrub) and suitable habitat for this species occurs in the project vicinity. Vegetation clearing in the vicinity of occupied habitat could result in significant impacts to this species.

The proposed project will not result in significant impacts under the following guidelines for the following reasons:

A. Federally or state listed endangered or threatened wildlife species were not observed within the survey area and none are considered to have a high potential to occur within the impact areas.

D. Suitable breeding habitat for arroyo toad was not observed within the survey area.

E. Raptors and golden eagles are known to occur in the project vicinity (e.g., nesting along San Vicente Reservoir) and suitable foraging habitat (0.30 acre of grasslands) is located within the 3.14-acre impact area. Impacts to this habitat would be minimal and would occur generally along the existing bench cut that was historically cleared of vegetation. Impacts would not be considered significant as they would not threaten the long-term success of raptors or golden eagles. Impacts to nest locations known to occur off-site near San Vicente Reservoir are not anticipated.

F. While raptors were observed within the survey area and suitable foraging habitat (0.30 acre of grasslands) is located within the 3.14-acre impact area, impacts to this habitat would be minimal and would not contribute to a loss of functional foraging habitat for raptors. The surrounding lands are in long-term Preserves that will be maintained and managed in perpetuity with the intent of minimizing development and protecting on-site resources. These areas provide ample foraging habitat for raptors in the vicinity of the proposed project.

G. The proposed project does not propose nighttime lighting. In addition, noise levels associated with proposed project construction or operation (i.e., trail usage) is not anticipated to result in levels above ambient that would adversely affect special status wildlife species.

H. While the proposed project area would be considered part of a core wildlife area (Lake Jennings/Wildcat Canyon- El Cajon Mountain Core Resource Area), the limited impacts associated with the proposed project, which are concentrated along the existing bench cut which was historically cleared of vegetation, would not impact the viability of the site to function as a core wildlife area. Similarly, indirect impacts associated with trail use will not affect the viability of the site to function as a core wildlife area. Wildlife will continue to be able to move within and through the core area.

Mitigation Measures and Design Considerations

B,C, I. Pre-construction training for construction crews will be conducted to address sensitive species that occur or have potential to occur along the proposed trail.

B,C. The trail alignment shall avoid impacts to County Group A, B plant species, to the extent feasible, which includes project design and construction methodology (e.g., minimal ground disturbance and no impact to seed bank, no offsite fill required, etc.) .

I. The proposed Flume Trail connects to the County's El Monte County Park Trail, located within El Monte County Park. A Resource Management Plan has been prepared for El Monte County Park, which identifies Area-Specific Management Directives aimed at preserving and enhancing biological resources within El Monte County Park. Ongoing maintenance and monitoring of the proposed Flume Trail will occur during implementation of the El Monte County Park RMP. The proposed Flume Trail will be patrolled by Park Rangers who will identify unauthorized trail use or other adverse effects associated with increased human use (e.g. trash). Such issues will be addressed through construction of fence segments, installation of signs, or other means to prevent ongoing impacts resulting from increased human use on the site or competition from domestic animals.

J. Potentially significant impacts on the nesting success of tree- and/or ground-nesting raptors shall be mitigated through seasonal restrictions and pre-construction surveys. In order to mitigate potentially significant impacts to nesting success of tree- and/or ground-nesting raptors, vegetation clearing or grading shall be restricted during the breeding season (January 15–July 15 and February 1 to July 31, respectively, annually) unless pre-construction surveys by a qualified biologist determine no nesting raptors would be impacted by the proposed work. If active nests are identified within the impact area, vegetation-clearing activities shall not occur within 500 feet of tree-nesting raptor nests and 800 feet of ground-nesting raptor nests until either the breeding season has ended or the nest is no longer active.

In order to reduce potential impacts to the California gnatcatcher to less than significant and to comply with the County's Biological Mitigation Ordinance, all brushing, clearing and/or grading will be restricted (i.e., none will be allowed) within 300 feet of coastal sage scrub habitat during the breeding season of the California gnatcatcher (March 1-August 15). The Director of Parks and Recreation may waive this condition, through written concurrence from the U. S. Fish and Wildlife Service and the California Department of Fish and Game that no California gnatcatcher are present in the vicinity of the brushing, clearing or grading, based on a field survey completed within one week of the proposed onset of ground disturbance.

RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITIES

Significance Criteria

A project would have a potentially significant effect on biological resources if:

The project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Specifically, any of the following conditions would be considered significant:

A. Project-related construction, grading, clearing, construction, or other activities would temporarily or permanently remove sensitive native or naturalized habitat on or off the project site.

B. Any of the following will occur to, or within, jurisdictional wetlands or riparian habitats as defined by USACE, CDFG and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; or any activity that may cause an adverse change in native species composition, diversity and abundance.

C. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historical low groundwater levels.

D. The project would increase human access or competition from domestic animals, pests, or exotic species to levels proven to adversely affect sensitive habitats.

E. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

Analysis of Project Effects

Each of the significance criteria listed above are discussed below with respect to the proposed project's anticipated effects. Those criteria for which impacts are not anticipated are discussed briefly at the end of the section.

A. Direct impacts to sensitive habitat associated with development of the proposed trail and associated brush clearing would consist of 1.78 acres of coastal sage scrub, 0.91 acre of southern mixed chaparral, and 0.30 acre of nonnative grassland (Table 3; Figures 7a-7e). A small portion of the proposed trail passes through 0.09 acre of coast live oak woodland; however, coast live oaks would not be removed during brushing and clearing and their root zone would not be disturbed as trail construction will be achieved by hand. Impacts to coastal sage scrub, southern mixed chaparral and nonnative grassland communities would be considered significant and will require mitigation.

   If a structural crossing is constructed at Drainage #7, impacts to coast live oak woodland would be slightly reduced from the proposed alignment (without the structural crossing). If the proposed trail alternative (trail would deviate from the proposed alignment near Drainages #7 and #8, where the trail would head north outside the County-owned easement) is chosen, the construction of the trail would result in impacts to 1.76 acres of coastal sage scrub, 0.93 acre of southern mixed chaparral, and 0.30 acre of nonnative grassland (Table 3; Figures 7a-7e). The

proposed trail alternative will traverse through 0.08 acre of coast live oak woodland; however, coast live oaks would not be removed during brushing and clearing and their root zone would not be disturbed as trail construction will be achieved by hand.

A total of 0.06 acre of disturbed and/or developed lands occurs within the impact area for the proposed trail and the two alternatives. This land cover type is not considered sensitive and direct impacts associated with construction, grading, clearing, or other activities would not be considered significant.

Table 3. Direct Project Impacts

	Impacts (Acres)		
Vegetation/Land Cover Type	**Proposed Trail**	**Proposed Trail with Structural Crossing at Drainage #7**	**Proposed Trail Alternative**
Diegan Coastal Sage Scrub	1.78	1.78	1.76
Coast Live Oak Woodland	0.09	<0.09*	0.08
Southern Mixed Chaparral	0.91	0.91	0.93
Nonnative Grassland	0.30	0.30	0.30
Developed	0.01	0.01	0.01
Disturbed Habitat	0.05	0.05	0.05
Total	**3.14**	**<3.14**	**3.13**

* reduction in impacts would be determined after design of the structural crossing.

B. A total of 12 ephemeral drainage features were identified along the proposed alignment of the proposed trail, all of which were determined to be non-wetland waters under the joint jurisdiction of the USACE, CDFG, and RWQCB (Figures 8a-8e). These unnamed drainage features measure 2- to 5-feet wide and are likely direct tributaries to the San Diego River. Construction of a trail within a 10-foot wide area would result in a total of 340 square feet of impacts to drainage features determined to be regulated as USACE non-wetland waters of the U.S., RWQCB waters of the state, and CDFG State Streambeds.

If a structural crossing is constructed at Drainage #7, impacts to approximately 30 square feet would be avoided for a total impact of 310 square feet. Alternatively, if additional trail easements are obtained and the proposed trail alternative near Drainages #7 and #8 is constructed, impacts to approximately 30 square feet would be avoided (for a total of 310 square feet of impacts) as the proposed crossing would occur downstream where Drainages #7 and #8 merge into one approximately 4-foot-wide feature.

Potential impacts to the identified drainage features consist of foot, bicycle and equestrian traffic associated with the use of the proposed trail in its finished condition. Such impacts would be significant and would require a nationwide 404 permit from the USACE, a Water Quality Waiver or 401 Certification from the RWQCB, and a CDFG section 1602 Streambed Alteration Agreement. However, since the drainage features lack wetland vegetation, the construction and presence of a trail through these features would not affect wetland vegetation; therefore construction of the proposed trail would not result in the net loss of jurisdictional wetlands, and will not substantially alter the biological function and values of the streambeds. The construction of the trail will not alter topography or hydrology of the streambed, and will allow continued water flow through the area. Therefore, compensatory mitigation is not anticipated to be required.

D. Construction of the proposed project could result in impacts to sensitive habitat through increasing human access to the site. Such human-related impacts could include destruction of vegetation through trampling and unauthorized off-trail use. Impacts associated with increased human activity on the site and competition from domestic animals would be considered potentially significant. The project would not intentionally introduce pests or exotic species to the site.

The proposed project will not result in significant impacts under the following guidelines for the following reasons:

C. The project would involve minimal water use and would not draw down the groundwater table to the detriment of groundwater-dependent habitat.

E. Jurisdictional wetlands do not occur within the proposed project area. The proposed trail crosses a total of 12 drainage features; however, all were determined to be USACE non-wetland waters of the U.S. and the proposed project would not impact the functions and values of these drainage features.

Mitigation Measures and Design Considerations

Mitigation measures discussed below correspond to impacts discussed above under guidelines A and D. Table 4 outlines the impacts to sensitive vegetation communities, required mitigation ratios, and how the identified mitigation will be accomplished.

A. Coast live oaks shall not be removed during brush clearing for the proposed project. Significant impacts to 1.78 acres of coastal sage scrub, 0.91 acre of southern mixed chaparral, and 0.30 acre of nonnative grassland associated with development of the proposed trail will be offset by the off-site preservation of habitat of the same or higher Tier than the habitat impacted, the purchase of mitigation credits within an approved mitigation bank, or in accordance with County Board Policy I-138 at the following BMO ratios:

- 1.5:1 for Diegan coastal sage scrub
- 1:1 for southern mixed chaparral
- 0.5:1 for nonnative grassland

Table 4. Direct Project Impacts

Vegetation/Land Cover Type	Impacts (Acres)	Mitigation Ratio	Proposed Mitigation
PROPOSED TRAIL			
Diegan Coastal Sage Scrub	1.78	1.5:1	2.67 acres of Tier I or Tier II habitat
Coast Live Oak Woodland	0.09	N/A*	N/A
Southern Mixed Chaparral	0.91	1:1	0.91 acre of Tier I, II, or III habitat
Nonnative Grassland	0.30	0.5:1	0.15 acre of Tier I, II, or III habitat
Developed	0.01	N/A	N/A
Disturbed Habitat	0.05	N/A	N/A
Subtotal	**3.14**		**3.73 acres**
PROPOSED TRAIL WITH STRUCTURAL CROSSING AT DRAINAGE #7			
Diegan Coastal Sage Scrub	1.78	1.5:1	2,67 acres of Tier I or II habitat
Coast Live Oak Woodland	<0.09*	N/A**	N/A
Southern Mixed Chaparral	0.91	1:1	0.91 acre of Tier I, II, or III habitat
Nonnative Grassland	0.30	0.5:1	0.15 acre of Tier I, II, or III habitat
Developed	0.01	N/A	N/A
Disturbed Habitat	0.05	N/A	N/A
Subtotal	**<3.14**		**3.73 acres**
PROPOSED TRAIL ALTERNATIVE			
Diegan Coastal Sage Scrub	1.76	1.5:1	2.64 acres of Tier I or II habitat
Coast Live Oak Woodland	0.08	N/A*	N/A
Southern Mixed Chaparral	0.93	1:1	0.93 acre of Tier I, II, or III habitat
Nonnative Grassland	0.30	0.5:1	0.15 acre of Tier I, II, or III habitat
Developed	0.01	N/A	N/A
Disturbed Habitat	0.05	N/A	N/A
Subtotal	**3.13**		**3.72 acres**

* reduction in impacts would be determined after design of the structural crossing.

** coast live oaks would not be removed during brushing and clearing and their root zone would not be disturbed as trail construction will be achieved by hand. Therefore, no mitigation is required.

B. As discussed above, compensatory mitigation is not anticipated to be required for impacts to drainage features determined to be non-wetland waters under the joint jurisdiction of the USACE, RWQCB, and CDFG.

D. The proposed trail connects to the County's El Monte County Park Trail, located within El Monte County Park. A Resource Management Plan has been prepared for El Monte County Park, which identifies Area-Specific Management Directives aimed at preserving and enhancing biological resources within El Monte County Park. Ongoing maintenance and monitoring of the proposed Flume Trail will occur during implementation of the El Monte County Park RMP. The proposed Flume Trail will be patrolled by Park Rangers who will identify unauthorized trail use or other adverse effects associated with increased human use (e.g., trash). Such issues will be addressed through construction of fence segments, installation of signs, or other means to prevent ongoing impacts resulting from increased human use on the site or competition from domestic animals.

JURISDICTIONAL WETLANDS AND WATERWAY

Significance Criteria

A project would have a potentially significant effect on biological resources if:

> The project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means.

Specifically, any of the following conditions would be considered significant:

A. Any of the following will occur to, or within jurisdictional wetlands or riparian habitats as defined by USACE, CDFG and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; or any activity that may cause an adverse change in native species composition, diversity and abundance.

B. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historical low groundwater levels.

C. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

Each of the significance criteria listed above are discussed below with respect to the proposed project's anticipated effects. Those criteria for which impacts are not anticipated are discussed briefly at the end of the section.

A. A total of 12 ephemeral drainage features were identified along the proposed alignment of the proposed project, all of which were determined to be non-wetland waters under the joint jurisdiction of the USACE, CDFG, and RWQCB. These unnamed drainage features measure 2- to 5-

feet wide and are likely direct tributaries to the San Diego River. Construction of a trail within a 10-foot wide area would result in a total of 340 square feet of impacts to drainage features determined to be regulated as USACE non-wetland waters of the U.S., RWQCB waters of the state, and CDFG State Streambeds.

If a structural crossing is constructed at Drainage #7, impacts to approximately 30 square feet would be avoided for a total impact of 310 square feet (this assumes the crossing would be constructed in such a way as to avoid impacts to the jurisdictional drainage). Alternatively, if additional trail easements are obtained and the proposed trail alternative near Drainages #7 and #8 is constructed, impacts to approximately 30 square feet would be avoided (for a total of 310 square feet of impacts) as the proposed crossing would occur downstream where Drainages #7 and #8 merge into one approximately 4-foot-wide feature.

Potential impacts to the identified drainage features consist of foot, bicycle and equestrian traffic associated with the use of the proposed trail in its finished condition. Such impacts would be significant and would require a nationwide 404 permit from the USACE, a Water Quality Waiver or 401 Certification from the RWQCB, and a CDFG section 1602 Streambed Alteration Agreement. However, since the drainage features lack wetland vegetation, the construction and presence of a trail through these features would not affect wetland vegetation; therefore construction of the proposed trail would not result in the net loss of jurisdictional wetlands, and will not substantially alter the biological function and values of the streambeds. The construction of the trail will not alter topography or hydrology of the streambed, and will allow continued water flow through the area. Therefore, compensatory mitigation is not anticipated to be required.

The proposed project will not result in significant impacts under the following guidelines for the following reasons:

B. The project would involve minimal water use and would not draw down the groundwater table to the detriment of groundwater-dependent habitat.

C. Jurisdictional wetlands do not occur within the proposed project area. The proposed trail crosses a total of 12 drainage features; however, all were determined to be USACE non-wetland waters of the U.S. and the project would not impact the functions and values of these drainage features.

Mitigation Measures and Design Considerations

Since the drainage features lack wetland vegetation, the construction and presence of a trail through these features would not affect wetland vegetation; therefore construction of the proposed trail would not result in the net loss of jurisdictional wetlands, and will not substantially alter the biological function and values of the streambeds. The construction of the trail will not alter topography or hydrology of the streambeds, and will allow continued water flow through the area. Therefore, compensatory mitigation is not anticipated to be required.

WILDLIFE CORRIDOR AND LINKAGE IMPACTS

A project would have a potentially significant effect on biological resources if:

> The project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Any of the following conditions would be considered significant:

A. The project would prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

B. The project would substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage.

C. The project would create artificial wildlife corridors that do not follow natural movement patterns.

D. The project would increase noise or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

E. The project does not maintain an adequate width for an existing wildlife corridor or linkage, or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path.

F. The project does not maintain adequate visual continuity (i.e., long lines-of-site) within wildlife corridors or linkage.

The proposed project would not result in significant impacts under the guidelines listed above as impacts would be limited to a 10-foot-wide area that generally follows the existing bench cut. These impacts would not impact wildlife mobility, breeding, or reproduction. These limited impacts would also not prevent or interfere with connectivity to adjacent preserve areas in the Cleveland National forest, the El Capitan Preserve or adjacent lower reaches of the San Diego River. The proposed project would not result in any significant impacts to wildlife corridors or linkages.

Wildlife Corridor and Linkage Mitigation

As the proposed project would not result in significant impacts to wildlife corridors and linkages, mitigation is not proposed.

CUMULATIVE IMPACTS

A cumulative impact analysis is an assessment of how the proposed project, whose impacts may not be individually significant, could contribute significantly to the total impacts to sensitive resources occurring in the project vicinity. The proposed project is limited to the construction of a trail generally along an existing bench cut that historically was cleared of vegetation. Significant impacts would occur to the following sensitive vegetation communities: 1.78 acres of coastal sage scrub, 0.09 acre of coast live oak woodland, 0.91acre of southern mixed chaparral, and 0.30 acre of nonnative grassland. Significant impacts to 340 square feet of non-wetland waters under the joint jurisdiction of USACE, RWQCB, and CDFG would occur as a result of the proposed project. Impacts to less than 10 individuals of delicate clarkia, a County List A and CRPR 1B species, could occur. In addition, impacts to other sensitive plant species, if present, could occur as a result of the proposed project. Significant impacts to special status species could occur as a result of increased human activity and competition from domestic animals, which could also affect nesting success.

Cumulative impacts to sensitive resources occurring in the project vicinity are not anticipated to be significant due to the lack of development and rural character of the adjacent properties. Many of these areas are dedicated open space easements or County owned Preserves that will be maintained and managed in perpetuity with the intent of protecting onsite sensitive biological resources. In addition, the proposed project's impacts to sensitive biological resources within the historic flume alignment are limited and would not be cumulatively considerable.

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Dale Ritenour	Primary author, Biological surveys
Rachel Henry	Co-author
Douglas Allen	Biological surveys, County-approved biologist
Teal Zeisler	GIS

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CONCLUSIONS

The proposed project would result in significant impacts to sensitive biological resources; however, mitigation measures have been proposed that would reduce impacts to below a level of significance.

If you have any questions regarding the contents of this letter report, please contact Erin Schorr or Dale Ritenour at (858) 578-8964.

Sincerely,

Erin Schorr
County Approved Biologist

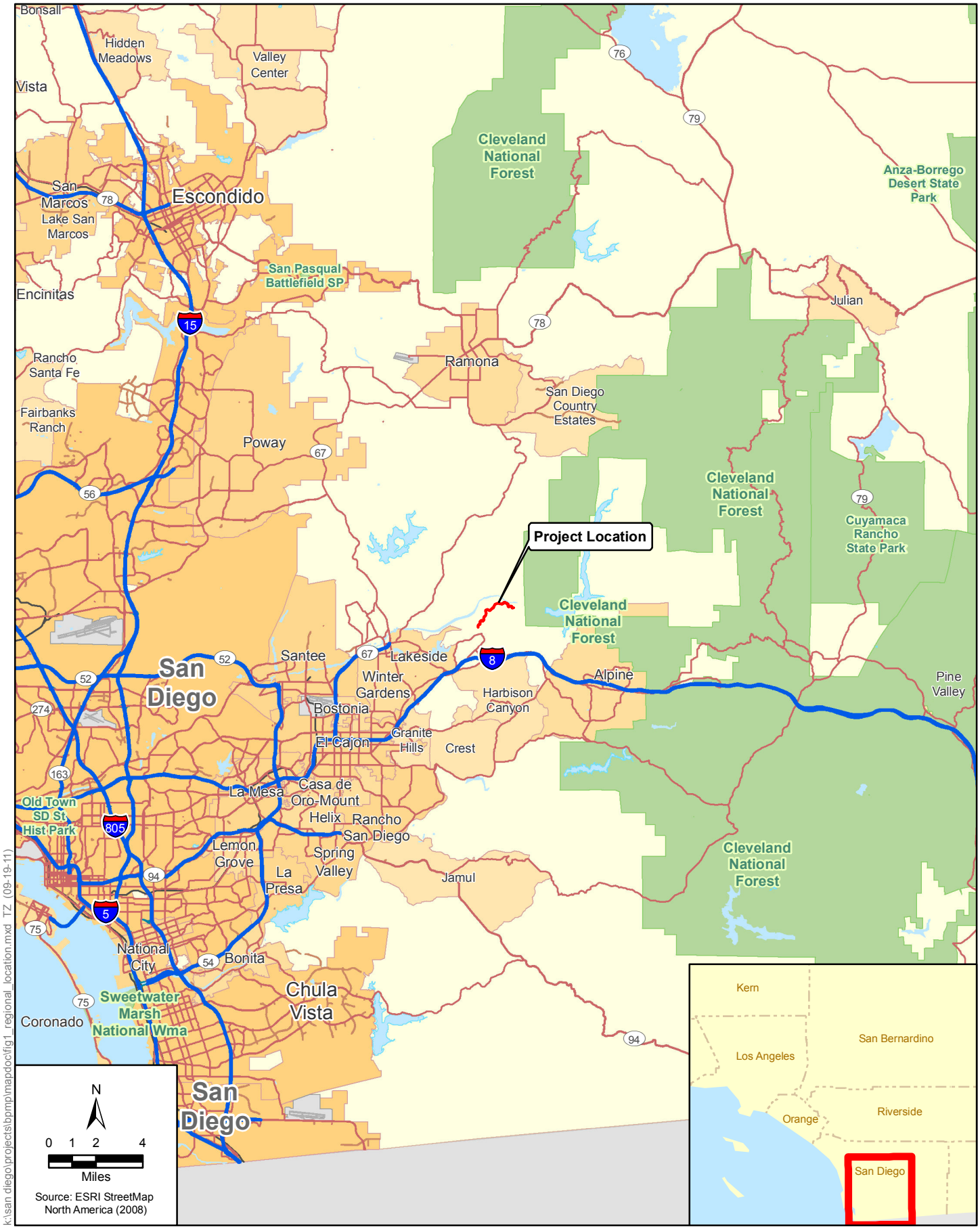
ATTACHMENTS

Attachment 1 Figures 1–8
Attachment 2 Plant Species Observed

Attachment 3 Wildlife Species Detected
Attachment 4 Sensitive Species with Potential to Occur
Attachment 5 Jurisdictional Delineation Report for the Flume Trail Project

ATTACHMENT 1

FIGURES



ICF INTERNATIONAL

Figure 1
Regional Location
County Department of Parks and Recreation Flume Trail

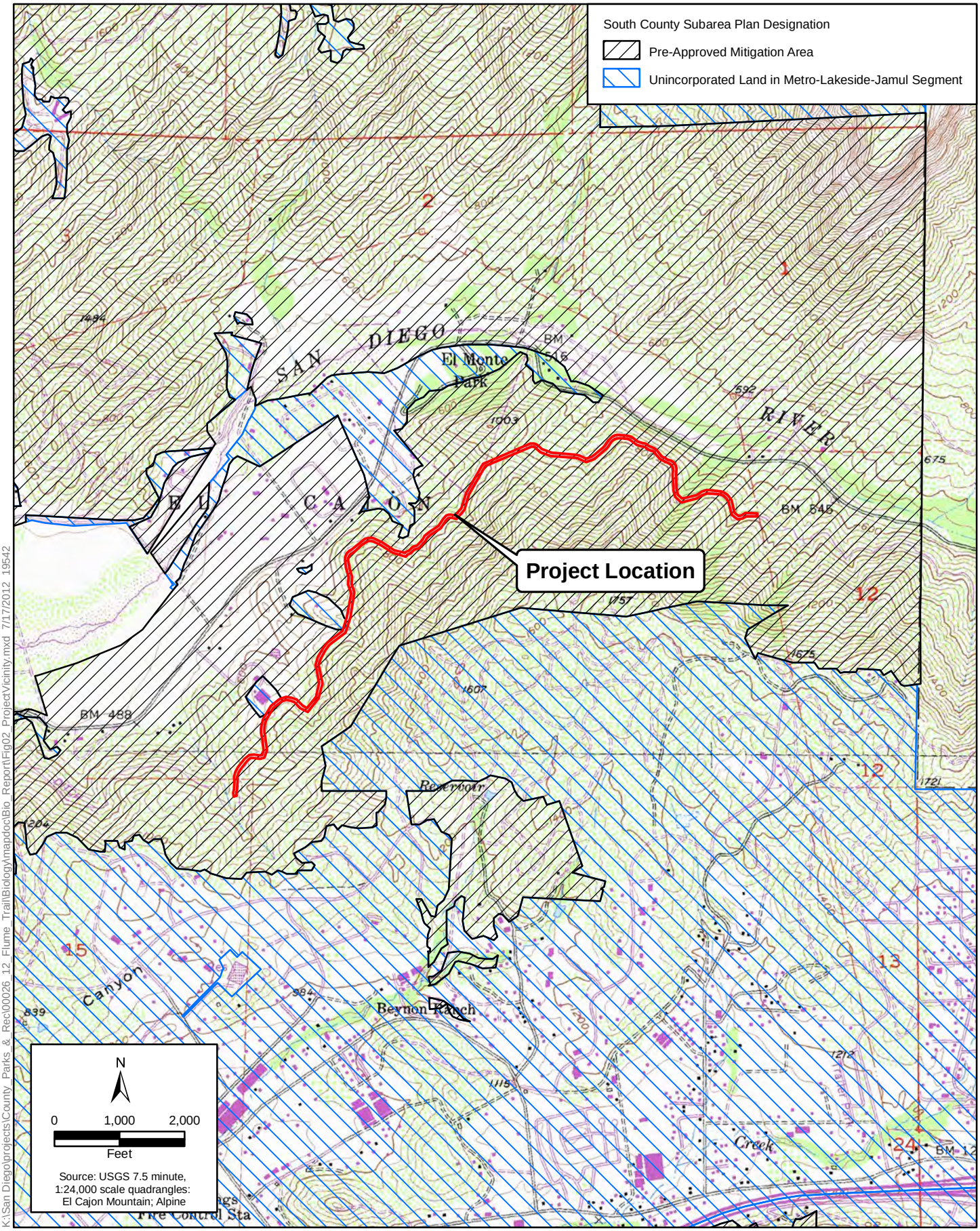


Figure 2
Project Vicinity and South County Subarea Plan Designations
County Department of Parks and Recreation Flume Trail

Legend

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

Soils

Source: ESRI Imagery, 2010.

Cieneba coarse sandy loam, 30 to 65 percent slopes, ero ded

Cieneba-Fallbrook rocky sandy loams, 30 to 65 percent s lopes, erode

Vista coarse sandy loam, 9 to 15 percent slopes, eroded

Bonsall sandy loam, 9 to 15 percent slopes, eroded

N

0 200 400

Feet

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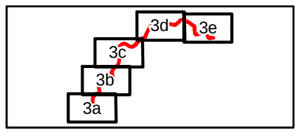

Figure 3a
Soils
County Department of Parks and Recreation Flume Trail

Legend

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

Soils

Source: ESRI Imagery, 2010.

slopes, eroded

Cieneba coarse sandy loam, 30 to 65 percent slopes, ero ded

Cieneba-Fallbrook rocky sandy loams, 30 to 65 percent s lopes, erode

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0 200 400

Feet

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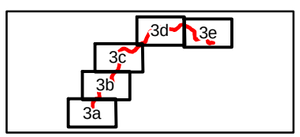

Figure 3b
Soils
County Department of Parks and Recreation Flume Trail

Legend

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

Soils

Source: ESRI Imagery, 2010.

Tujunga sand, 0 to 5 percent slopes

Ramona sandy loam, 9 to 15 percent slopes, eroded

Visalia sandy loam, 0 to 2 percent slopes

Cieneba coarse sandy loam, 30 to 65 percent slopes, ero ded

Cieneba-Fallbrook rocky sandy loams, 30 to 65 percent s lopes, erode

Ramona sandy loam, 5 to 9 percent slopes, eroded

N

0 200 400

Feet

K:\San Diego\projects\County Parks & Rec\00026 12 Flume Trail\Biology\Mapdoc\Field Maps JD.mxd 5/18/2012 19542

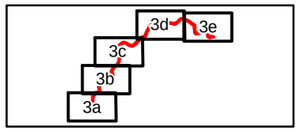

Figure 3c
Soils
County Department of Parks and Recreation Flume Trail

Legend

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

Soils

Source: ESRI Imagery, 2010.

Riverwash

Cieneba-Fallbrook rocky sandy loams, 30 to 65 percent s lopes, erode

Ramona sandy loam, 9 to 15 percent slopes, eroded

Cieneba coarse sandy loam, 30 to 65 percent slopes, ero ded

N

0 200 400

Feet

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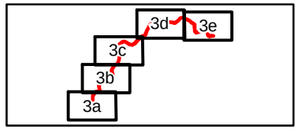

Figure 3d
Soils
County Department of Parks and Recreation Flume Trail

Legend

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

Soils

Source: ESRI Imagery, 2010.

Tujunga sand, 0 to 5 percent slopes

Stony land

Riverwash

Tujunga sand, 0 to 5 percent slopes

Cieneba-Fallbrook rocky sandy loams, 30 to 65 percent s lopes, erode

N

0 200 400

Feet

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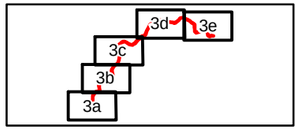
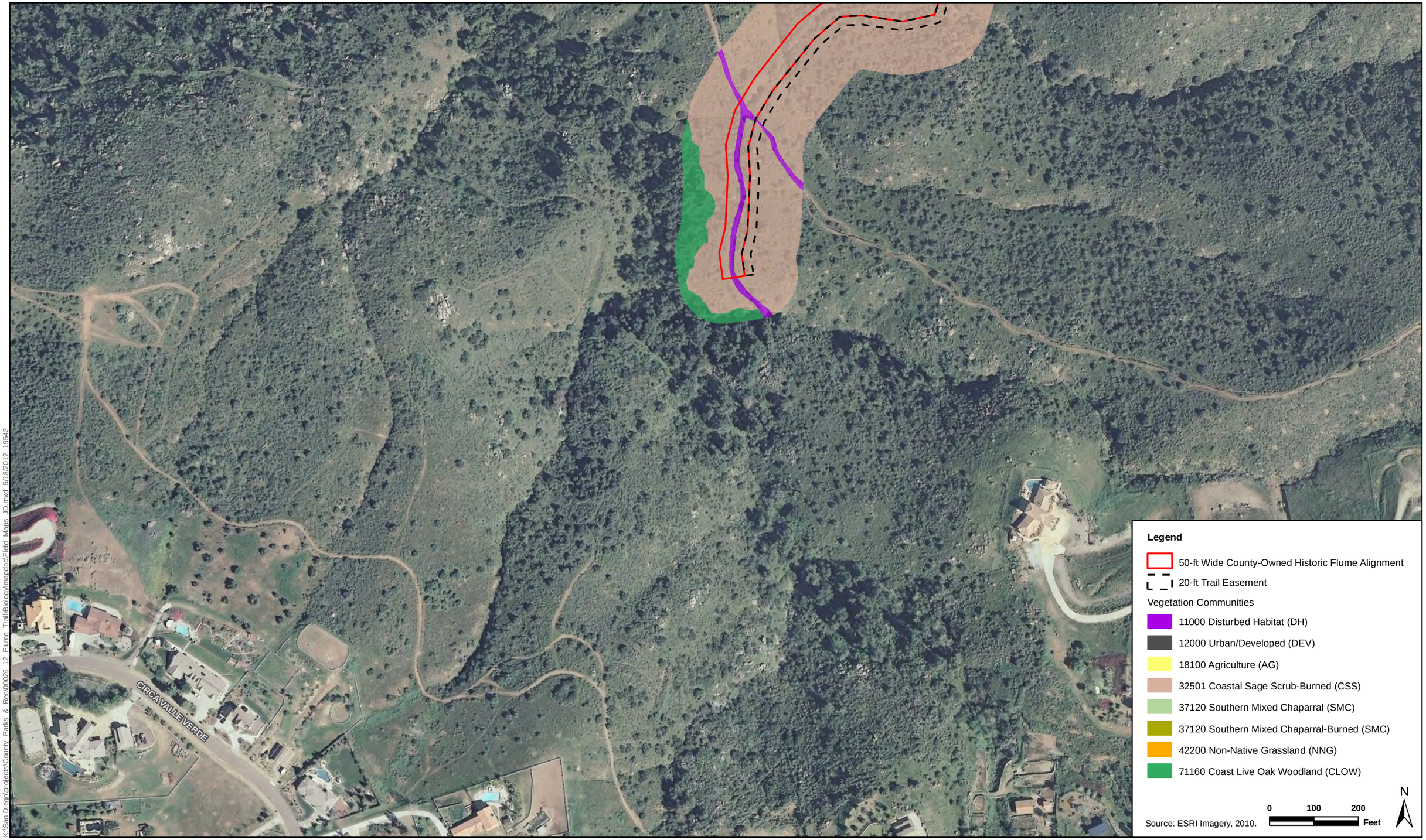


Figure 3e
Soils
County Department of Parks and Recreation Flume Trail



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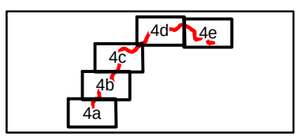

Figure 4a
Vegetation Communities
County Department of Parks and Recreation Flume Trail

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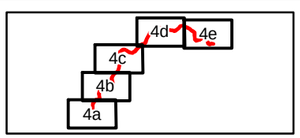
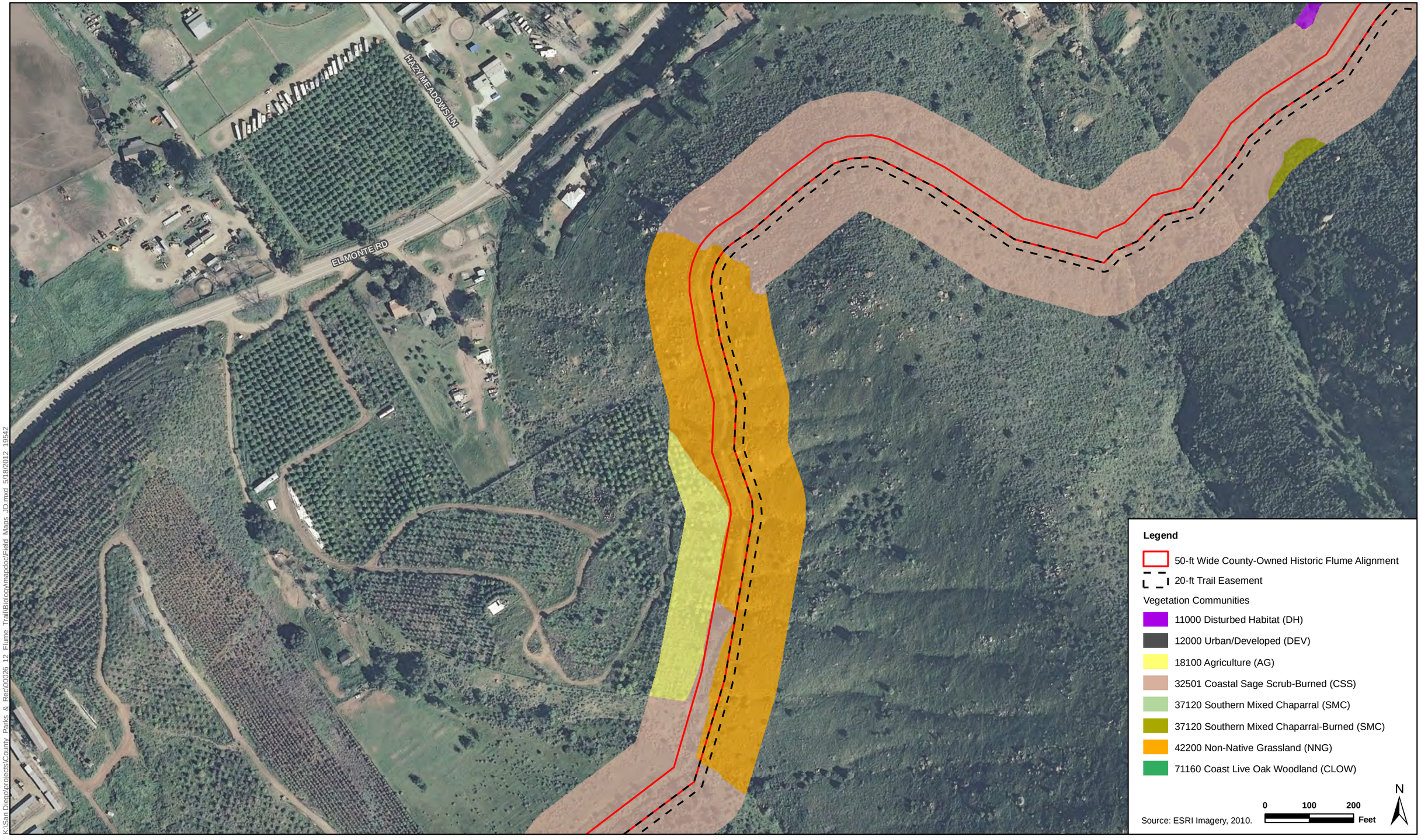


Figure 4b
Vegetation Communities
County Department of Parks and Recreation Flume Trail



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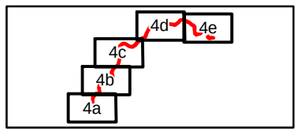

Figure 4c
Vegetation Communities
County Department of Parks and Recreation Flume Trail

EL MONTE RD

Legend

- 50-ft Wide County-Owned Historic Flume Alignment
- 20-ft Trail Easement

Vegetation Communities

- 11000 Disturbed Habitat (DH)
- 12000 Urban/Developed (DEV)
- 18100 Agriculture (AG)
- 32501 Coastal Sage Scrub-Burned (CSS)
- 37120 Southern Mixed Chaparral (SMC)
- 37120 Southern Mixed Chaparral-Burned (SMC)
- 42200 Non-Native Grassland (NNG)
- 71160 Coast Live Oak Woodland (CLOW)

N

0 100 200 Feet

Source: ESRI Imagery, 2010.

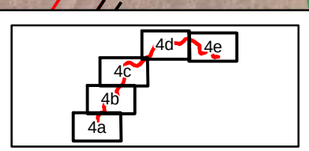

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Figure 4d
Vegetation Communities
County Department of Parks and Recreation Flume Trail

EL MONTE RD

Legend

- 50-ft Wide County-Owned Historic Flume Alignment
- 20-ft Trail Easement

Vegetation Communities

- 11000 Disturbed Habitat (DH)
- 12000 Urban/Developed (DEV)
- 18100 Agriculture (AG)
- 32501 Coastal Sage Scrub-Burned (CSS)
- 37120 Southern Mixed Chaparral (SMC)
- 37120 Southern Mixed Chaparral-Burned (SMC)
- 42200 Non-Native Grassland (NNG)
- 71160 Coast Live Oak Woodland (CLOW)

0 100 200 Feet

N

Source: ESRI Imagery, 2010.

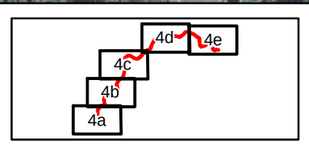

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Figure 4e
Vegetation Communities
County Department of Parks and Recreation Flume Trail

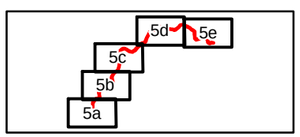

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Figure 5a
Sensitive Species
County Department of Parks and Recreation Flume Trail

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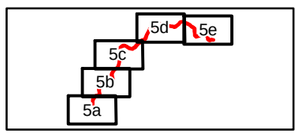

Figure 5b
Sensitive Species
County Department of Parks and Recreation Flume Trail

K:\San Diego\projects\County Parks & Rec\00026 12 Flume Trail\Biology\Mapdoc\Field Maps JD.mxd 5/18/2012 19542

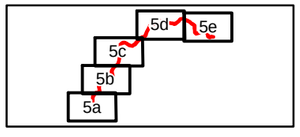

Figure 5c
Sensitive Species
County Department of Parks and Recreation Flume Trail

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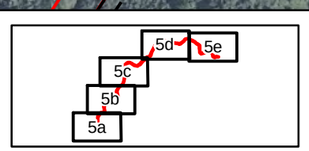

Figure 5d
Sensitive Species
County Department of Parks and Recreation Flume Trail

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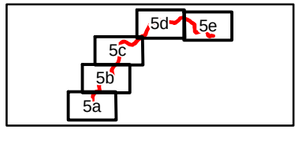

Figure 5e
Sensitive Species
County Department of Parks and Recreation Flume Trail

Legend

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed

Source: ESRI Imagery, 2010.

Drainage Feature #1 (2 feet wide)

CIRCA VALLE VERDE

KINGFISHER CREEK RD

N

0 200 400

Feet

K:\San Diego\projects\County Parks & Rec\00026 12 Flume Trail\Biology\mapdoc\Field Maps JD.mxd 5/18/2012 19542

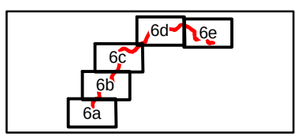

Figure 6a
Jurisdictional Delineation
County Department of Parks and Recreation Flume Trail

Legend

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed

Source: ESRI Imagery, 2010.

Drainage Feature #3 (2 feet wide)

Drainage Feature #2 (3 feet wide)

N

0 200 400

Feet

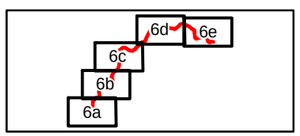

Figure 6b
Jurisdictional Delineation
County Department of Parks and Recreation Flume Trail

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Legend

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed

Source: ESRI Imagery, 2010.

HAZY MEADOWS LN

EL MONTE RD

Drainage Feature #6 (3 feet wide)

Drainage Feature #5 (3 feet wide)

Drainage Feature #4 (3 feet wide)

N

0 200 400

Feet

K:\San Diego\projects\County Parks & Rec\00026 12 Flume Trail\Biology\mapdoc\Field Maps JD.mxd 5/18/2012 19542

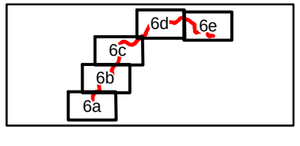

Figure 6c
Jurisdictional Delineation
County Department of Parks and Recreation Flume Trail

Legend

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed

Source: ESRI Imagery, 2010.

EL MONTE RD

Drainage Feature #9 (2 feet wide)

Drainage Feature #10 (2 feet wide)

Drainage Feature #8 (4 feet wide)

Drainage Feature #7 (3 feet wide)

N

0 200 400

Feet

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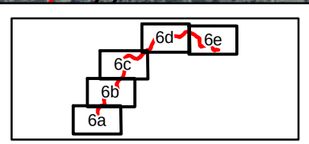

Figure 6d
Jurisdictional Delineation
County Department of Parks and Recreation Flume Trail

Legend

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed

Source: ESRI Imagery, 2010.

EL MONTE RD

Drainage Feature #11 (2 feet wide)

Drainage Feature #12 (5 feet wide)

N

0 200 400

Feet

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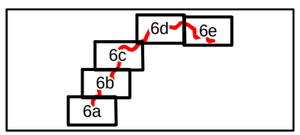

Figure 6e
Jurisdictional Delineation
County Department of Parks and Recreation Flume Trail

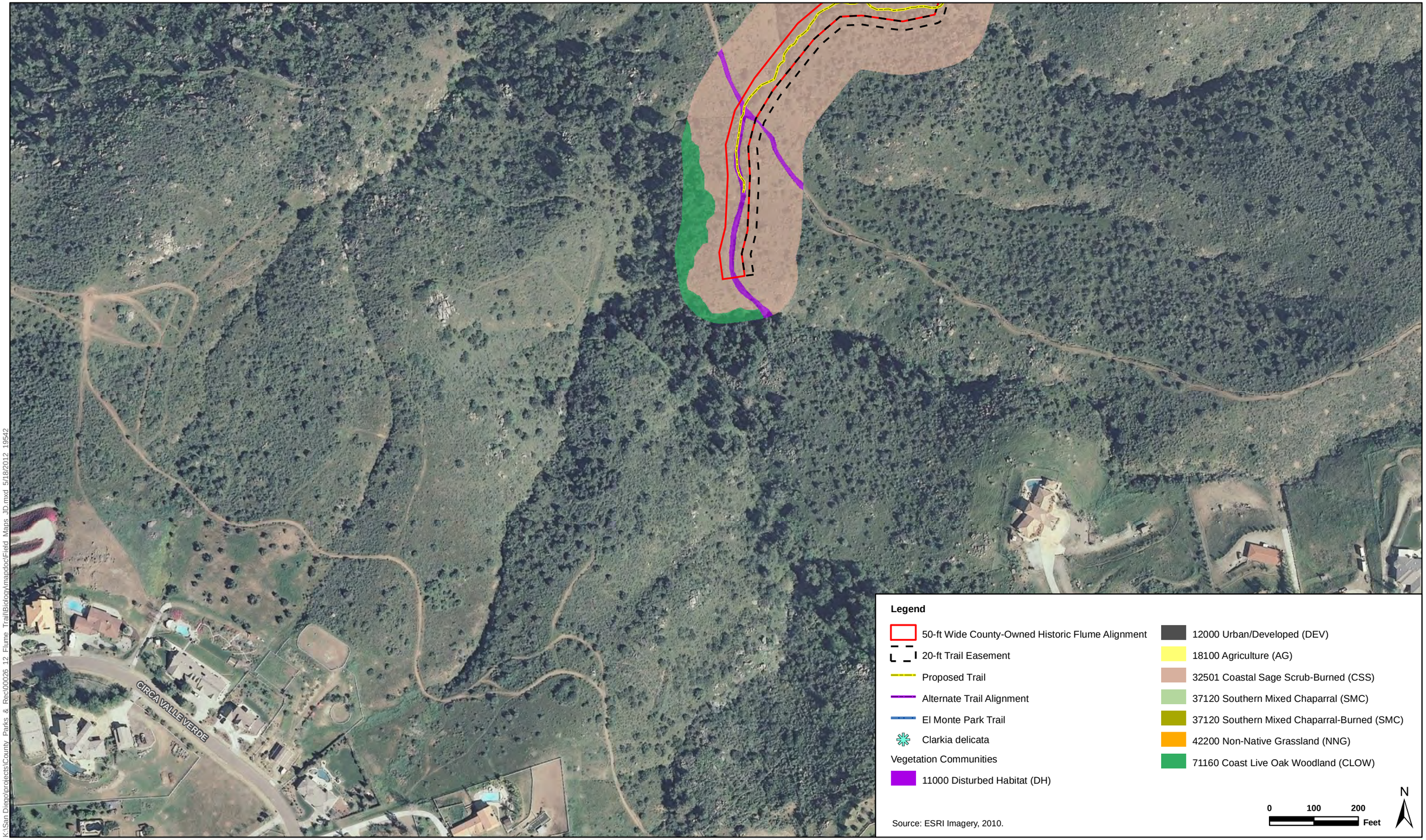

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Figure 7a
Biological Impacts Map
County Department of Parks and Recreation Flume Trail

EL MONTE RD

Legend

- 50-ft Wide County-Owned Historic Flume Alignment
- 20-ft Trail Easement
- Proposed Trail
- Alternate Trail Alignment
- El Monte Park Trail
- Clarkia delicata

Vegetation Communities

- 11000 Disturbed Habitat (DH)
- 12000 Urban/Developed (DEV)
- 18100 Agriculture (AG)
- 32501 Coastal Sage Scrub-Burned (CSS)
- 37120 Southern Mixed Chaparral (SMC)
- 37120 Southern Mixed Chaparral-Burned (SMC)
- 42200 Non-Native Grassland (NNG)
- 71160 Coast Live Oak Woodland (CLOW)

Source: ESRI Imagery, 2010.

0 100 200 Feet

N

7a 7b 7c 7d 7e

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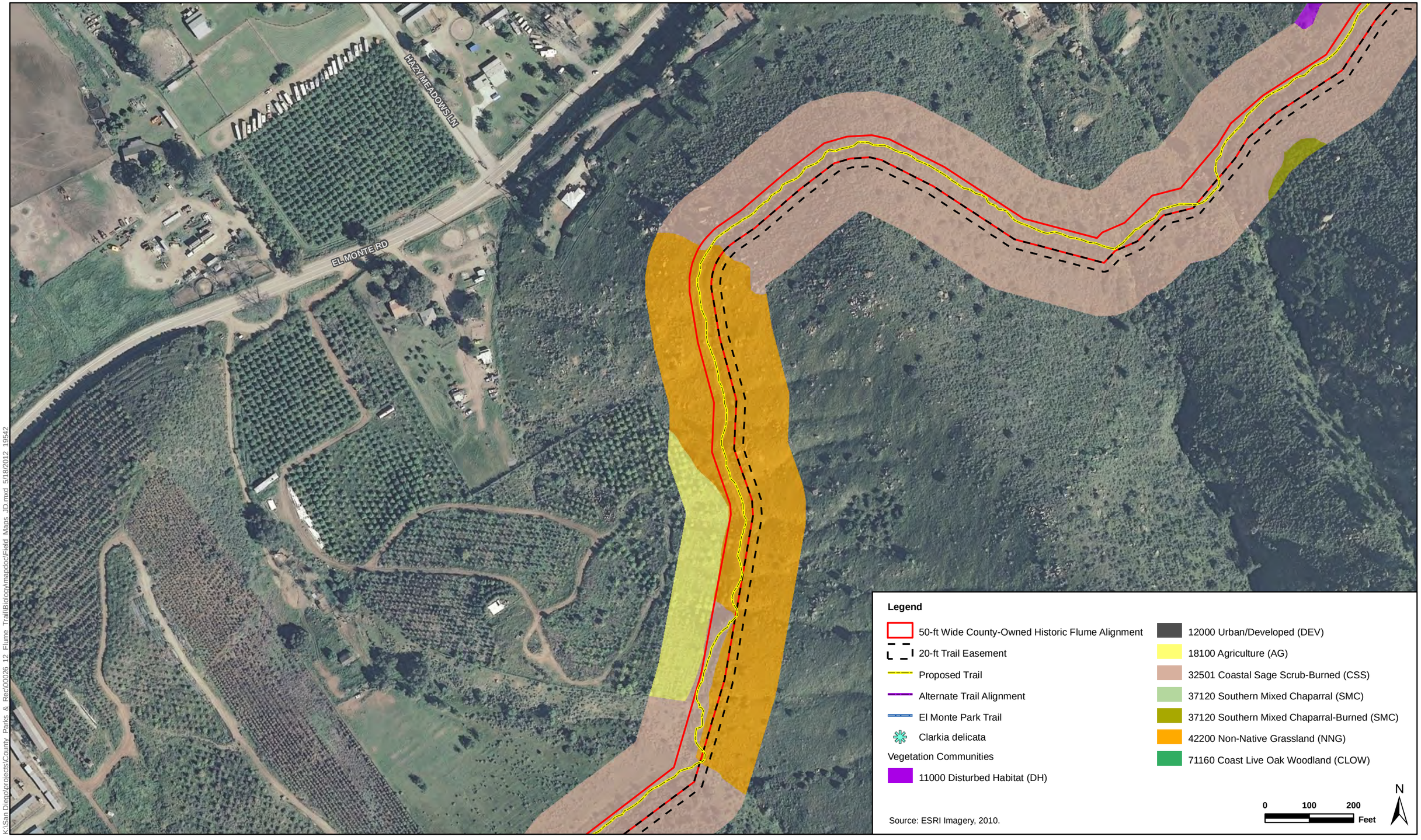
Figure 7b
Biological Impacts Map
County Department of Parks and Recreation Flume Trail



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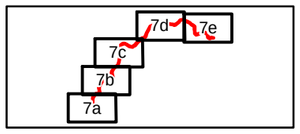
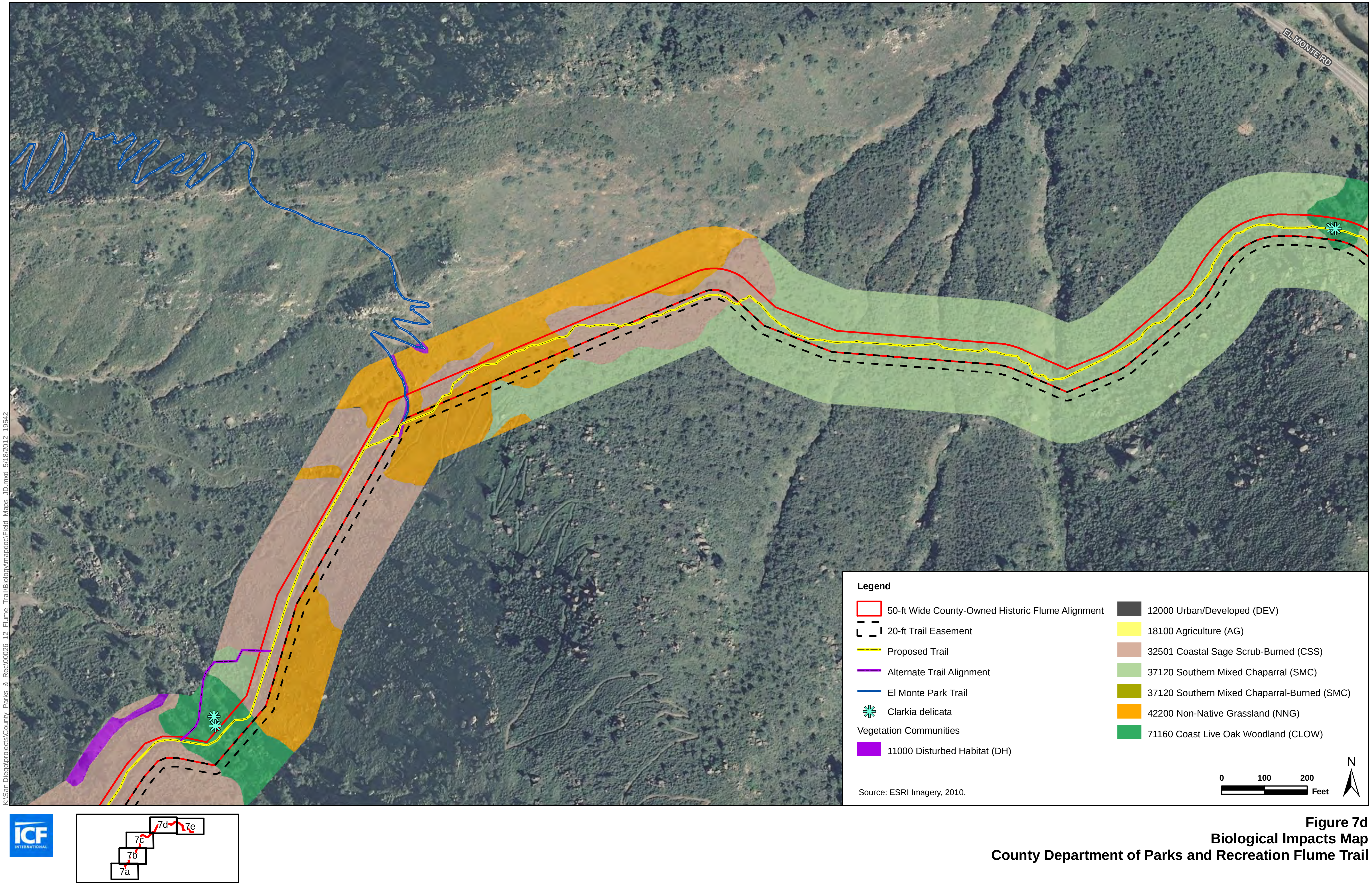


Figure 7c
Biological Impacts Map
County Department of Parks and Recreation Flume Trail



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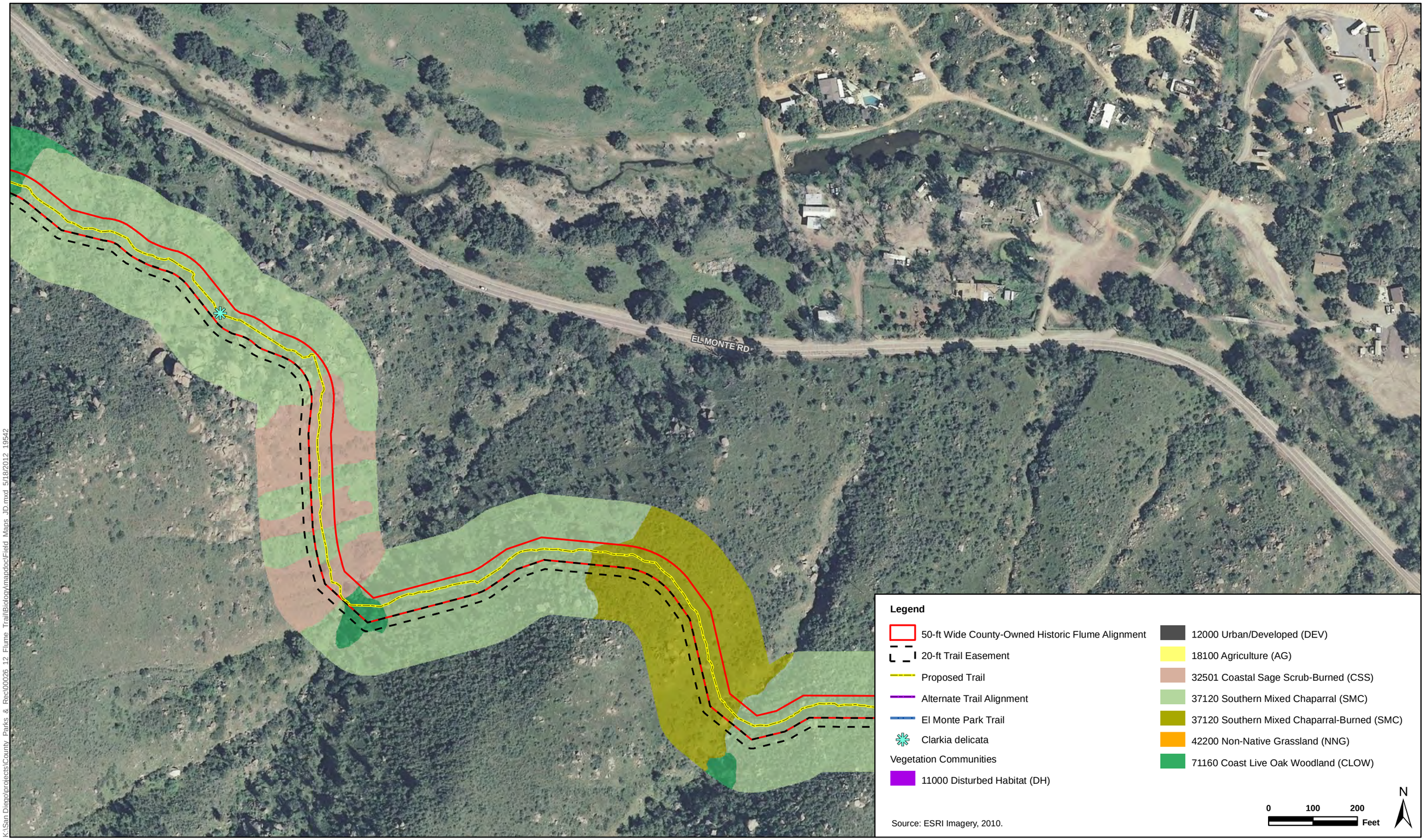
ICF INTERNATIONAL

Figure 7d
Biological Impacts Map
County Department of Parks and Recreation Flume Trail



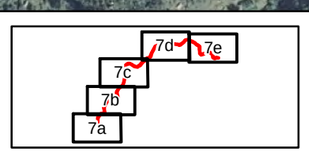


Figure 7e
Biological Impacts Map
County Department of Parks and Recreation Flume Trail

Legend

- 50-ft Wide County-Owned Historic Flume Alignment
- 20-ft Trail Easement
- USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed
- Proposed Trail
- Alternate Trail Alignment
- El Monte Park Trail

Source: ESRI Imagery, 2010.

Drainage Feature #1 (2 feet wide)

CIRCA VALLE VERDE

KINGFISHER CREEK RD

N

0 200 400

Feet

K:\San Diego\projects\County Parks & Rec\00026 12 Flume Trail\Biology\mapdoc\Field Maps JD.mxd 5/18/2012 19542

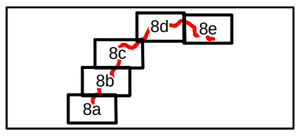


Figure 8a
Jurisdictional Impacts
Flume Trail

Legend

- 50-ft Wide County-Owned Historic Flume Alignment
- 20-ft Trail Easement
- USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed
- Proposed Trail
- Alternate Trail Alignment
- El Monte Park Trail

Source: ESRI Imagery, 2010.

Drainage Feature #3 (2 feet wide)

Drainage Feature #2 (3 feet wide)

N

0 200 400

Feet

K:\San Diego\projects\County Parks & Rec\000026 12 Flume Trail\Biology\mapdoc\Field Maps JD.mxd 5/18/2012 19542

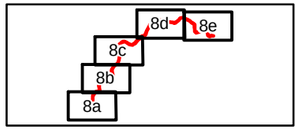


Figure 8b
Jurisdictional Impacts
Flume Trail

Legend

- 50-ft Wide County-Owned Historic Flume Alignment
- 20-ft Trail Easement
- USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed
- Proposed Trail
- Alternate Trail Alignment
- El Monte Park Trail

Source: ESRI Imagery, 2010.

EL MONTE RD

Drainage Feature #6 (3 feet wide)

Drainage Feature #5 (3 feet wide)

Drainage Feature #4 (3 feet wide)

N

0 200 400

Feet

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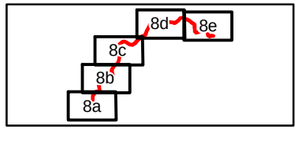

Figure 8c
Jurisdictional Impacts
Flume Trail

Legend

- 50-ft Wide County-Owned Historic Flume Alignment
- 20-ft Trail Easement
- USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed
- Proposed Trail
- Alternate Trail Alignment
- El Monte Park Trail

Source: ESRI Imagery, 2010.

EL MONTE RD

Drainage Feature #9 (2 feet wide)

Drainage Feature #10 (2 feet wide)

Drainage Feature #8 (4 feet wide)

Drainage Feature #7 (3 feet wide)

N

0 200 400

Feet

K:\San Diego\projects\County Parks & Rec\00026 12 Flume Trail\Biology\mapdoc\Field Maps 3D.mxd 5/19/2012 19542

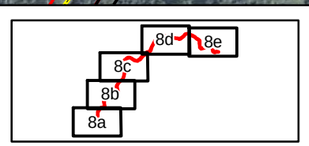

Figure 8d
Jurisdictional Impacts
Flume Trail

Legend

- 50-ft Wide County-Owned Historic Flume Alignment
- 20-ft Trail Easement
- USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed
- Proposed Trail
- Alternate Trail Alignment
- El Monte Park Trail

Source: ESRI Imagery, 2010.

EL MONTE RD

Drainage Feature #11 (2 feet wide)

Drainage Feature #12 (5 feet wide)

N

0 200 400

Feet

K:\San Diego\projects\County_Parks_&_Rec\00026_12_Flume_Trail\Biology\mapdoc\Field_Maps_JD.mxd 5/18/2012 19542

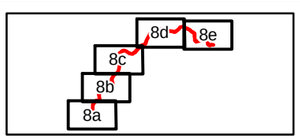

Figure 8e
Jurisdictional Impacts
Flume Trail

ATTACHMENT 2

PLANT SPECIES OBSERVED

Attachment 2. Plant Species Observed

Scientific Name	Common Name	Special Status
LYCOPHYTES		
Selaginellaceae - Spike-moss Family		
Selaginella bigelovii	Bigelow's Spike Moss	
LEPTOSPORANGIATE FERNS		
Pteridaceae - Brake Family		
Pellaea andromedifolia	Coffee Cliff-Brake	
Pellaea mucronata var. californica	Bird's Foot Cliff-Brake	
Pentagramma triangularis	Silverback Fern	
MONOCOTS		
Cyperaceae - Sedge Family		
Carex triquetra	Triangular-Fruit Sedge	
Iridaceae - Iris Family		
Sisyrinchium bellum	Blue-Eyed Grass	
Liliaceae - Lily Family		
Calochortus splendens	Splendid Mariposa Lily	
Poaceae - Grass Family		
* *Avena barbata*	Slender Wild Oat	
* *Avena fatua*	Wild Oat	
* *Bromus diandrus*	Ripgut Grass	
* *Bromus hordeaceus*	Soft Chess	
* *Bromus madritensis ssp. madritensis*	Compact Brome	
* *Hordeum murinum*	Foxtail Barley	
* *Lamarckia aurea*	Golden-Top	
Muhlenbergia rigens	Deergrass	
* *Pennisetum setaceum*	Crimson Fountain Grass	
Stipa pulchra	Purple Needlegrass	
* *Festuca myuros var. hirsuta*	Hairy Rat-tail Fescue	
Themidaceae - Brodiaea Family		
Bloomeria crocea	Common Goldenstar	
Dichelostemma capitatum ssp. capitatum	Blue Dicks	
EUDICOTS		
Adoxaceae - Adoxa Family		
Sambucus mexicana	Blue Elderberry	

Scientific Name	Common Name	Special Status
Anacardiaceae - Sumac Or Cashew Family		
Malosma laurina	Laurel Sumac	
Rhus aromatica	Skunkbrush	
* *Schinus molle*	Peruvian Pepper Tree	
Toxicodendron diversilobum	Poison Oak	
Apiaceae - Carrot Family		
Daucus pusillus	Rattlesnake Weed	
Apocynaceae - Dogbane Family		
Funastrum cynanchoides ssp. hartwegii	Climbing Milkweed	
Asteraceae - Sunflower Family		
Acourtia microcephala	Sacapellote	
Artemisia californica	California Sagebrush	
Baccharis sarothroides	Broom Baccharis	
Brickellia californica	California Brickellbush	
* *Carduus pycnocephalus*	Italian Thistle	
* *Centaurea melitensis*	Tocalote	
* *Cirsium vulgare*	Bull Thistle	
Conyza canadensis	Horseweed	
Corethrogyne filaginifolia var. californica	California Sand-Aster	
Erigeron foliosus var. foliosus	Leafy Fleabane	
Hazardia squarrosa var. grindelioides	Southern Sawtooth Goldenbus	
* *Hedypnois cretica*	Cretanweed	
Heterotheca grandiflora	Telegraph Weed	
* *Hypochaeris glabra*	Smooth Cat's Ear	
* *Lactuca serriola*	Prickly Lettuce	
Lasthenia gracilis	Common Goldfields	
Logfia californica	California Filago	
Pseudognaphalium biolettii	Bicolor Cudweed	
Pseudognaphalium californicum	California Everlasting	
* *Silybum marianum*	Milk Thistle	
* *Sonchus oleraceus*	Common Sow-Thistle	
Stephanomeria exigua	Small Wirelettuce	
Stephanomeria virgata	Rod Wirelettuce	

Scientific Name	Common Name	Special Status
Boraginaceae - Borage Family		
Amsinckia menziesii	Rigid Fiddleneck	
Nemophila menziesii	Baby Blue Eyes	
Phacelia cicutaria var. hispida	Caterpillar Phacelia	
Brassicaceae - Mustard Family		
* *Hirschfeldia incana*	Short-Podded Mustard	
Lepidium sp.	Peppergrass	
* *Sisymbrium orientale*	Hare's-ear Cabbage	
Caprifoliaceae - Honeysuckle Family		
Lonicera subspicata	Southern Honeysuckle	
Caryophyllaceae - Pink Family		
* *Cerastium glomeratum*	Mouse-ear Chickweed	
* *Silene gallica*	Common Catchfly	
Silene laciniata ssp. major	Southern Indian Pink	
Chenopodiaceae - Goosefoot Family		
Chenopodium sp.		
Cistaceae - Rock-Rose Family		
Helianthemum scoparium	Peak Rush Rose	
Convolvulaceae - Morning-Glory Family		
Calystegia macrostegia	Island Morning-Glory	
Cuscuta sp.	Dodder	
Crassulaceae - Stonecrop Family		
Crassula connata	Sand Pygmyweed	
Dudleya edulis	Fingertips	
Dudleya palmeri	Palmer's Dudleya	
Dudleya pulverulenta	Chalk Dudleya	
Cucurbitaceae - Gourd Family		
Marah macrocarpus	Wild Cucumber	
Ericaceae - Heath Family		
Xylococcus bicolor	Mission Manzanita	
Euphorbiaceae - Spurge Family		
Chamaesyce sp.	Sandmat/Spurge	
Croton setigerus	Dove Weed	
Fabaceae - Legume Family		
Acmispon glaber	Deerweed	

Scientific Name	Common Name	Special Status
Lupinus hirsutissimus	Stinging Lupine	
Lupinus truncatus	Blunt-Leaved Lupine	
Fagaceae - Oak Family		
Quercus agrifolia	Coast Live Oak	
Quercus berberidifolia	Scrub Oak	
Geraniaceae - Geranium Family		
* *Erodium botrys*	Long-Beak Filaree	
* *Erodium cicutarium*	Red-Stemmed Filaree	
* *Erodium moschatum*	White-Stemmed Filaree	
Grossulariaceae - Gooseberry Family		
Ribes speciosum	Fuchsia-Flowered Gooseberry	
Lamiaceae - Mint Family		
* *Lamium amplexicaule*	Henbit	
* *Marrubium vulgare*	Common Horehound	
Salvia apiana	White Sage	
Salvia columbariae	Chia	
Malvaceae - Mallow Family		
Malacothamnus fasciculatus	Mendocino Bushmallow	
* *Malva parviflora*	Cheeseweed	
Montiaceae - Montia Family		
Claytonia parviflora ssp. parviflora	Utah Miner's Lettuce	
Claytonia sp.	Miner's Lettuce	
Nyctaginaceae - Four O'clock Family		
Mirabilis laevis	Wishbone Plant	
Onagraceae - Evening Primrose Family		
Clarkia delicata	Delicate Clarkia	CRPR 1B.1, SDC List A
Clarkia purpurea	Purple Clarkia	
Epilobium canum	California Fuchsia	
Epilobium ciliatum ssp. ciliatum	Willowherb	
Paeoniaceae - Peony Family		
Paeonia californica	California Peony	
Phrymaceae - Hopseed Family		
Mimulus aurantiacus	Bush Monkey Flower	
Plantaginaceae - Plantain Family		
Antirrhinum nuttallianum ssp. nuttallianum	Nuttall's Snapdragon	

Scientific Name	Common Name	Special Status
Collinsia concolor	Southern Chinese Houses	
Collinsia sp.	Blue-Eyed Mary	
Keckiella cordifolia	Climbing Bush Penstemon	
Polygonaceae - Buckwheat Family		
Eriogonum contiguum	Annual Desert Trumpet	
Eriogonum fasciculatum	California Buckwheat	
Ranunculaceae - Buttercup Family		
Clematis pauciflora	Ropevine Clematis	
Delphinium sp.	Larkspur	
Rhamnaceae - Buckthorn Family		
Rhamnus crocea	Spiny Redberry	
Rosaceae - Rose Family		
Adenostoma fasciculatum	Chamise	
Heteromeles arbutifolia	Toyon	
Rubiaceae - Madder Family		
Galium sp.	Bedstraw	
Saxifragaceae - Saxifrage Family		
Jepsonia parryi	Parry's Jepsonia	
Schrophulariaceae -Figwort Family		
Scrophularia californica	California Bee Plant	
Solanaceae - Nightshade Family		
Datura wrightii	Western Jimpson Weed	
* *Nicotiana glauca*	Tree Tobacco	
Urticaceae - Nettle Family		
* *Urtica urens*	Dwarf Nettle	

Legend

*= Non-native or invasive species

Special Status:

Federal:
FE = Endangered
FT = Threatened

State:
SE = Endangered
ST =Threatened
SR = Rare

CRPR – California Rare Plant Rank
1A. Presumed extinct in California
1B. Rare or Endangered in California and elsewhere
2. Rare or Endangered in California, more common elsewhere
3. Plants for which we need more information - Review list
4. Plants of limited distribution - Watch list

Threat Ranks
.1 - Seriously endangered in California
.2 – Fairly endangered in California
.3 – Not very endangered in California

San Diego County (SDC)
Plants
List A – Rare, threatened or endangered in California and elsewhere
List B – Rare, threatened or endangered in California but more common elsewhere
List C – Maybe quite rare, but more information is needed to determine their status
List D – Limited distribution and are uncommon but not presently rare or endangered
MSCP – Covered species under the Multiple Species Conservation Program, San Diego County Subarea

ATTACHMENT 3

WILDLIFE SPECIES DETECTED

Attachment 3. Wildlife Species Detected

Scientific Name	Common Name	Special Status
INVERTEBRATES		
Moths, Skippers and Butterflies		
Anthocharis sara	Pacific Orangetip	
Apodemia virgulti	Behr's Metalmark	
Coenonympha tullia	Common Ringlet	
VERTEBRATES		
Reptiles		
Sceloporus orcutti	Granite Spiny Lizard	
Uta stansburiana	Side-blotched Lizard	
Aspidoscelis tigris multiscutatus	Coastal Western Whiptail	SDC Group 2
Crotalus helleri	Southern Pacific Rattlesnake	
Birds		
**Meleagris gallopavo*	Wild Turkey	
Cathartes aura	Turkey Vulture	SDC Group 1
Accipiter cooperii	Cooper's Hawk	SDC Group 1, MSCP
Buteo jamaicensis	Red-tailed Hawk	
Zenaida macroura	Mourning Dove	
Aeronautes saxatalis	White-throated Swift	
Calypte anna	Anna's Hummingbird	
Calypte costae	Costa's Hummingbird	
Picoides nuttallii	Nuttall's Woodpecker	
Sayornis saya	Say's Phoebe	
Myiarchus cinerascens	Ash-throated Flycatcher	
Tyrannus verticalis	Western Kingbird	
Aphelocoma californica	Western Scrub-Jay	
Corvus brachyrhynchos	American Crow	
Corvus corax	Common Raven	
Psaltriparus minimus	Bushtit	
Catherpes mexicanus	Canyon Wren	
Thryomanes bewickii	Bewick's Wren	
Troglodytes aedon	House Wren	
Chamaea fasciata	Wrentit	
Mimus polyglottos	Northern Mockingbird	

Scientific Name	Common Name	Special Status
Phainopepla nitens	Phainopepla	
Dendroica coronata	Yellow-rumped Warbler	
Pipilo maculatus	Spotted Towhee	
Melozone crissalis	California Towhee	
Zonotrichia leucophrys	White-crowned Sparrow	
Carpodacus mexicanus	House Finch	
Carduelis psaltria	Lesser Goldfinch	
Mammals		
Sylvilagus audubonii	Desert Cottontail	
Spermophilus beecheyi	California Ground Squirrel	
Peromyscus maniculatus	Deer Mouse	
Canis latrans	Coyote	
Odocoileus hemionus	Southern Mule Deer	SDC Group 2, MSCP

Legend

*= Non-native or invasive species

Special Status:

Federal:
FE = Endangered
FT = Threatened

State:
SE = Endangered
ST =Threatened
CSC = California Species of Special Concern
CFP = California Fully Protected Species

San Diego County
Group 1 - includes those that have a very high level of sensitivity, either because they are listed as threatened or endangered or because they have very specific natural history requirement that must be met.
Group 2 - includes those species that are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action.
MSCP – Covered species under the Multiple Species Conservation Program, San Diego County Subarea

ATTACHMENT 4

SENSITIVE SPECIES WITH POTENTIAL TO OCCUR

Attachment 4. Sensitive Species with Potential to Occur

Plants

Common Name (*Scientific Name*)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
San Diego thornmint (*Acanthomintha ilicifolia*)	FT SE CRPR 1B.1 SD County List A MSCP	Grassy openings in chaparral and coastal sage scrub, valley and foothill grassland, vernal pools. Prefers friable or broken clay soils.	Low	Appropriate soils are not present within the study area.
San Diego ambrosia (*Ambrosia pumila*)	FE CRPR 1B.1 SD County List A MSCP	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools, often in disturbed areas. Can occur in creek beds, seasonally dry drainages, and floodplains.	Moderate	Some suitable habitat located within and adjacent to the project area. Not observed during spring survey.
San Diego sagewort (*Artemisia palmeri*)	CRPR 4.2 SD County List D	Occurs along creeks and drainages near the coast; but inland it occurs in mesic chaparral conditions. Below 915 m (3000 ft).	Low	Suitable habitat does not occur on-site.
western spleenwort (*Asplenium vespertinum)*	CSC CRPR 4.2 SD County List D	Rocky areas in chaparral, cismontane woodland and coastal scrub. 180 - 1000 meters (591-3281 ft)	Moderate	Suitable habitat occurs within project area.
Dean's milkvetch (*Astragalus deanei*)	CRPR 1B.1 SD County List A	Open shrubby slopes. Associated with coastal sage scrub, chaparral, and sandy washes.	Moderate	Rare species observed on similar soils in the vicinity.
Jacumba milk-vetch (*Astragalus douglasii* var. *perstrictus*)	CRPR 1B.2	Rocky areas in chaparral, cismontane woodland, pinyon and juniper woodland, riparian scrub, valley and foothill grassland. 900-1370 m (2950-4495 ft).	Not expected	Project area is outside of the recorded distribution and habitat preference of this species.
San Diego milk-vetch (*Astragalus oocarpus*)	CRPR 1B.2 SD County List A	Openings in chaparral and oak woodland. 600-1500m (1968-4921ft).	Not expected	Mountain species. Project area is outside of the recorded distribution of this species..

Common Name (*Scientific Name*)	**Sensitivity Code & Status**	**Habitat Preference/Requirements**	**Potential to Occur**	**Rationale**
Coulter's saltbush (*Atriplex coulteri*)	CRPR 1B.2 SD County List A	Alkaline or clay in coastal bluff scrub, coastal dunes, coastal scrub, and valley and foothill grassland. 3-460 m (10-1509 ft)	Not expected	Suitable habitat and soils do not occur on-site.
Parish brittlescale (*Atriplex parishii*)	CRPR 1B.1 SD County List A	Non-native grasslands, Chenopod scrub, playas, vernal pools.	Not expected	Suitable habitat and soils do not occur on-site.
Encinitas Baccharis (*Baccharis vanessae*)	CRPR 1B.1 SD County List A MSCP	Generally coastally influenced chaparral and, cismontane woodland.	Low	The project area is outside of the known range of this species.
San Diego County sunflower (*Bahiopsis laciniata*)	CRPR 4.2	Chaparral and coastal scrub. 20-750m (66-2461ft)	High	Present in the vicinity, but not observed during field surveys. This is a conspicuous shrub and is easily recognizable in the field, if present.
San Diego goldenstar (*Bloomeria clevelandii*)	CRPR 1B.1 SD County List A MSCP	Clays soils in coastal sage scrub, chaparral, valley grasslands, freshwater vernal pools. 50-465 m (165-1535 ft).	Low	Suitable soils (clay) do not occur on site.
Orcutt's brodiaea (*Brodiaea orcuttii*)	CRPR 1B.1 SD County List A MSCP	Moist grasslands, near streams and the periphery of vernal pools. Below 1600m (5249ft).	Not expected	Suitable mesic habitat not present within the study area
Brewer's calandrinia (*Calandrinia breweri*)	CRPR 4.2 SD County List D	Sandy or loamy, disturbed sites and burns in chaparral and coastal scrub. 10-1220 m (33-4003 ft)	Moderate	Suitable habitat occurs on-site.
round-leaved filaree (*California macrophylla*)	CRPR 1B.1 SD County List B	Cismontane woodland, valley and foothill grassland , open habitat on friable clay soils	Low	Suitable soils (clay) do not occur on site.
Dunn's mariposa lily (*Calochortus dunnii*)	CRPR 1B.2 SD County List A	Rocky openings in chaparral or grassland/chaparral ecotone. 1500-1700m (4920-5577ft).	Moderate	Suitable habitat occurs on-site.

Common Name (*Scientific Name*)	**Sensitivity Code & Status**	**Habitat Preference/Requirements**	**Potential to Occur**	**Rationale**
Lewis' evening-primrose (*Camissonia lewisii*)	CRPR 3 SD County List C	Sandy substrates in coastal bluff scrub, cismontane woodland, coastal dunes, coastal sage scrub, and valley and foothill grassland	Low	Limited suitable habitat is present onsite within the staging area. Not observed during the spring survey.
San Luis Obispo sedge (*Carex obispoensis*)	CRPR 1B.2	Often found in serpentinite seeps, sometimes gabbro; often on clay soils; Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland. 10-820 m (33-2690 ft)	Low	Appropriate soils are not present within the study area.
Mojave paintbrust (*Castilleja plagiotoma*)	CRPR 4.3	Great Basin scrub (alluvial) in Joshua tree woodland, lower montane coniferous forest, pinyon and juniper woodland. 300-2500 m (984-8202 ft)	Low	Suitable habitat does not occur on-site.
Lakeside Ceanothus (*Ceanothus cyaneus*)	CRPR 1B.2 SD County List A MSCP	Closed-cone coniferous forest, inland dense mixed chaparral	Moderate	Known occurrences are less than 5 miles from the site. This is a conspicuous scrub and would have been observed, if present.
wart-stemmed ceanothus (*Ceanothus verrucosus*)	CRPR 2.2 SD County List B MSCP	Coastal chaparral intermixed with chamise and mission manzanita	Not expected	Primarily a coastal species. This is a conspicuous scrub and would have been observed, if present.
southern tarplant (*Centromadia parryi australis*)	CRPR 1B,1 SD County List A	Marshes and swamps, valley and foothill grassland, vernal pools	Not expected	Suitable habitat does not occur on-site.
smooth tarplant (*Centromadia pungens ssp. laevis*)	CRPR 1B.1 SD County List A	Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland	Low	Some suitable habitat is present on site. Not observed during the surveys.

Common Name (*Scientific Name*)	**Sensitivity Code & Status**	**Habitat Preference/Requirements**	**Potential to Occur**	**Rationale**
southern mountain misery (*Chamaebatia australis*)	CRPR 4.2 SD County List D	Chaparral on gabbroic or metavolcanic substrate, 120-1,005 m.	Not expected	Suitable soils not present within the study area.
Abrams' spurge (*Chamaesyce abramsiana*)	CRPR 2.2	Sandy areas in Mojavean desert scrub and Sonoran desert scrub. Below 915 m (3002 ft)	Not expected	Desert Species. Suitable habitat does not occur within the study area.
long spined-spine flower (*Chorizanthe polygonoides* var. *longispina*)	CRPR 1B.2 SD County List A	Clay lenses, largely devoid of shrubs. Occasionally seen on the periphery of vernal pool habitat and the periphery of montane meadows near vernal seeps. Below 1400m (4593ft).	Not expected.	No suitable clay soils are present within the study area.
delicate clarkia (*Clarkia delicata*)	CRPR 1B.2 SD County List A	Oak woodlands and chaparral. 235-1000m (770-3280ft).	Observed	Suitable habitat occurs onsite. Observed during the surveys.
San Miguel savory (*Clinopodium chandleri*) (=*Satureja chandleri)*	CRPR 1B.2 SD County List A	Gabbroic or metavolcanic soils in chaparral and oak woodland. 120-1075m (394-3527ft)	Not expected	Appropriate soils are not present.
summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*)	CRPR 1B.2 SD County List A	Southern mixed chaparral, usually on mesic north-facing slopes. Almost the entire population occurs west of Interstate 15. 100-550m (328-1804ft).	Low	The study area is outside of the expected range of this species.
small-flowered morning-glory (*Convolvulus simulans*)	CRPR 4.2 SD County List D	Clay and serpentinite seeps in chaparral (openings), coastal scrub, and valley and foothill grassland. 30-700m (98-2297ft)	Low	Appropriate soils are not present.
Cuyamaca larkspur (*Delphinium hesperium ssp. cuyamacae*)	SR CRPR 1B.2 SD County List A	Mesic habitats in .ower montane coniferous forest, meadows and seeps and vernal pools. 1220-1631m (4003-5351ft)	Not expected	Mountain species. Suitable habitat does not occur on-site.

Common Name (*Scientific Name*)	**Sensitivity Code & Status**	**Habitat Preference/Requirements**	**Potential to Occur**	**Rationale**
variegated dudleya (*Dudleya variegata*)	CRPR 1B.2 SD County List A MSCP	Openings in chaparral, cismontane woodland, and coastal sage scrub, isolated rocky substrates in open grasslands, and vernal pools and mima mounds	Low	Suitable soils not present within the study area.
Palmer's goldenbush (*Ericameria palmeri ssp. palmeri*)	CRPR 1B.1 SD County List B MSCP	Coastal drainages, in mesic chaparral sites, or rarely in coastal sage scrub. Below 600m (1969ft).	Low	Limited suitable habitat occurs on site.
vanishing wild buckwheat (*Eriogonum evanidum*)	CRPR 1B.1	Sandy areas in chaparral, cismontane woodland, lower montane coniferous forest, and pinyon and juniper woodland. 1100 - 2225 m (3609-7300 ft)	Low	Limited suitable habitat is present onsite within the staging area. Not observed during the spring survey.
San Diego barrel cactus (*Ferocactus viridescens*)	CRPR 2.1 SD County List B MSCP	Sandy to rocky areas. 10–150m (33-492ft).	Not expected	The project site is outside known range of this species. Not observed during the surveys.
sticky geraea (*Geraea viscida*)	CRPR 2.3 SD County List B	Chaparral (often in disturbed areas). 450–1700m (1476-5577 ft)	Not expected	Outside of the known range of this species.
Mission canyon bluecup (*Githopsis diffusa ssp. filicaulis*)	CRPR 3.1 SD County List C	Isolated, open areas in chaparral	Moderate	Some suitable habitat is present on the project site. There are known occurrences within 5 miles of the project area.
San Diego gumplant (*Grindelia hallii*)	CRPR 1B.2	Chaparral habitat in lower montane coniferous forest, meadows and seeps, valley and foothill grassland. 185-1745m (607-5725ft)	Not expected.	Primary endemic to San Diego mountains.
Palmer's grappling hook (*Harpagonella palmeri*)	CRPR 4.2 SD County List D	Clay vertisols with open grassy slopes or Diegan coastal sage scrub between 20-955m (66-3133 ft).	Low	Suitable clay soils not present within the study area.

Common Name (*Scientific Name*)	**Sensitivity Code & Status**	**Habitat Preference/Requirements**	**Potential to Occur**	**Rationale**
Tecate cypress (*Hesperocyparis forbesii*)	CRPR 1B.1 SD County List A MSCP	Clay, gabbroic or metavolcanic in closed-cone coniferous forest and chaparral. 80-1500m (262-4921ft)	Not expected	Suitable habitat does not occur on-site. Appropriate soils area not present.
Cuyamaca cypress (*Hesperocyparis stephensonii*)	CRPR 1B.1 SD County List A	Gabbroic in closed-cone coniferous forest, chaparral, cismontane woodland and riparian forest. 1035-1705m (3396-5596ft)	Not expected	Endemic to Cuyamaca Mountains. Study area is outside of the known range of the species.
beach goldenaster (*Heterotheca sessiliflora ssp. sessiliflora*)	CRPR 1B.1 SD County List D	Chaparral (coastal), coastal dunes and coastal scrub. Below 1225m (4019ft)	Not expected	Coastal species. Study area outside of known range of species.
Ramona horkelia (*Horkelia truncata*)	CRPR 1B.3 SD County List A	Open chamise chaparral between 400-1300m (1312-4265ft).	Low	Suitable habitat does not occur on-site. This species is known to occur within 5 miles of the project site.
San Diego sunflower (*Hulsea californica*)	CRPR 1B.3 SD County List A	Openings and burned areas in chaparral, lower montane coniferous forest and upper montane coniferous forest. 915-2915m (3002-9564ft)	Low	Project site is below know elevation range for this species.
Wright's hymenothrix (*Hymenothrix wrightii*)	CRPR 4.3 SD County List D	Cismontane woodland, lower montane coniferous forest, valley and foothill grassland. 1400-1550m (4593-5085ft)	Low	Suitable habitat does not occur on-site.
decumbent goldenbush (*Isocoma menziesii var. decumbens*)	CRPR 1B.2 SD County List A	Chaparral and coastal scrub (sandy, often in disturbed areas). 10-135m (33-443ft)	Low	Limited suitable habitat is present onsite. Not observed during the surveys.
southwestern spiny rush (*Juncus acutus ssp. leopoldii*)	CRPR 4.2 SD County List D	Coastal dunes (mesic), meadows and seeps (alkaline seeps), marshes and swamps (coastal salt). 3-900m (10-2593ft)	Low	Suitable habitat does not occur on-site.
heart leaved pitcher sage (*Lepechinia cardiophylla*)	CRPR 1B.2 SD County List A MSCP	Closed-cone coniferous forest, chaparral, cismontane woodland	Low	Outside of the known range of this species

Common Name (*Scientific Name*)	**Sensitivity Code & Status**	**Habitat Preference/Requirements**	**Potential to Occur**	**Rationale**
Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)	CRPR 1B.2 SD County List A	Openings in chaparral and sage scrub, generally well away from the coast in Southern California in the foothill elevations. Below 500m (1640ft).	Moderate	Suitable habitat occurs onsite. Not observed during the surveys. No known populations occur within 5 miles of the project site.
lemon lily (*Lilium parryi*)	CRPR 1B.2 SD County List A	Mesic habitat in lower montane coniferous forest, meadows and seeps, riparian forest, upper montane coniferous forest. 1220-2745m (4003-9006ft)	Low	Suitable habitat does not occur on-site.
Parish's meadowfoam (*Limnanthes alba ssp. parishii*)	SE 1B CRPR 1B.2 SD County List A	Vernally mesic habitat inlower montane coniferous forest, meadows and seeps, and vernal pools. 600-2000m (1969-6562ft)	Low	Suitable habitat does not occur on-site. Occurs at elevations higher than the project area.
Orcutt's linanthus (*Linanthus orcuttii*)	CRPR 1B.3 SD County List A	Openings in chaparral, lower montane coniferous forest, and pinyon and juniper woodland. 915-2145m (3002-7037ft)	Low	Suitable habitat does not occur on-site. Occurs at elevations higher than the project area.
Cleveland's bush monkeyflower (*Mimulus clevelandii*)	CRPR 4.2 SD County List D	Gabbroic, often in disturbed areas, openings, rocky in chaparral, cismontane woodland, and lower montane coniferous forest. 450-2000m (1476-6562ft)	Low	Suitable habitat does not occur on-site. Occurs at elevations higher than the project area.
Palomar monkeyflower (*Mimulus diffuses*)	CRPR 4.3	Sandy or gravelly areas in chaparral and lower montane coniferous forest. 1220-1830m (4003-6004ft)	Low	Suitable habitat does not occur on-site. Occurs at elevations higher than the project area.
felt-leaved monardella (*Monardella hypoleuca* var*. lanata*)	CRPR 1B.2 SD County List A MSCP	Chamise chaparral understory. 300-1000m (984-3280 ft).	Low	Known to occur within 5 miles of the project area. Not observed during the spring survey.

Common Name (*Scientific Name*)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
willowy monardella (*Monardella viminea*)	FE SE CRPR 1B.1 SD County List A MSCP	Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland, alluvial ephemeral washes, usually at sandy locales in seasonally dry washes	Not expected	Appropriate alluvial soils not present within the study area.
little mousetail (*Myosurus minimus ssp. apus*)	CRPR 3.1 SD County List C	Vernal pools	Not expected	No suitable habitat within the study area.
spreading navarretia (*Navarretia fossalis*)	CRPR 1B.1 SD County List A	Vernal pools	Low	No suitable habitat within the study area.
chaparral nolina (*Nolina cismontana*)	CRPR 1B.2 SD County List A	Usually found in xeric Diegan coastal sage scrub and open chaparral.	Moderate	Suitable habitat is present onsite, but the species was not observed during the surveys.
Dehesa nolina (*Nolina interrata*)	CRPR 1B.1 SD County List A MSCP	Open southern mixed chaparral and chamise chaparral. 200-700m (656-2296ft).	Low	Suitable habitat is present onsite, but the species was not observed during the surveys.
California adder's-tongue (*Ophioglossum californicum*)	CRPR 4.2 SD County List D	Chaparral, valley & foothill grassland, vernal pool margins, 60-300 m.	Not expected	Suitable mesic clay soils not present within the study area.
Gander's ragwort (*Packera ganderi*)	CRPR 1B.2 SD County List A	Openings in chaparral on metavolcanic, mafic or gabbro soils.	Low	Minimal suitable habitat is present onsite, but appropriate soils area lacking. Not observed during the surveys.
Montana chaparral-pea (*Pickeringia montana*)	CRPR 4.3	Gabbroic , granitic, or clay soils within chaparral; 0-1700 m (0-5577 ft).	Not expected	No suitable soils present within the study area.
Cooper's rein orchid (*Piperia cooperi*)	CRPR 4.2 SD County List D	Chaparral, cismontane woodland, and valley and foothill grassland. 15-1585m (49-5200ft) Uncommon, occurs on heavy (clay) soils	Not expected	No suitable clay soils present within the study area.

Common Name (*Scientific Name*)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
Fish's milkwort (*Polygala cornuta var. fishiae*)	CRPR 4.3 SD County List D	Often forming thickets in chaparral, cismontane woodland, and riparian woodland. 100-1000m (33-3281ft)	Low	Suitable habitat occurs on site. Not observed during field surveys.
Nuttall's scrub oak (*Quercus dumosa*)	CRPR 1B.1 SD County List A	Coastal chaparral with a generally open canopy cover	Low	Not expected. Some suitable habitat occurs within the area. Not observed during the surveys.
Engelmann oak (*Quercus engelmannii*)	CRPR 4.2 SD County List D	Oak woodland, southern mixed chaparral, and savannah grasslands of the interior valleys and slopes. Below 1300m (4265ft).	Low	Not observed during surveys. Suitable habitat occurs within the study area; however, this tree would have been detected if it occurred in the survey area.
Moreno currant (*Ribes canthariforme*)	CRPR 1B.3 SD County List A	Chamise chaparral. 500-1200m (1640-3937ft).	Low	There are known occurrences within 5 miles of the park. Suitable habitat present within the study area. Not observed during the surveys.
caraway-leaved woodland-gilia (*Saltugilia caruifolia*)	CRPR 4.3	Sandy, openings in chaparral and lower montane coniferous forest. 840-2300m (2756-7546ft)	Low	No suitable habitat exists on-site.
southern mountains skullcap (*Scutellaria bolanderi* ssp. *austromontana*)	CRPR 1B.2 SD County List A	Moist embankments of montane creeks. 600-2000m (1969-6562ft).	Not expected	Mountain species. No suitable habitat exists on-site.
Cove's cassia (*Senna covesii*)	CRPR 2.2 SD County List B	Sonoran desert scrub (sandy). 305-1070m (1001-3511ft)	Not expected	Desert species. No suitable habitat exists on-site.
Hammitt's clay-cress (*Sibaropsis hammittii*)	CRPR 1B.2 SD County List A	Clay in chaparral, valley and foothill grassland	Low	Suitable clay soils not present within the study area.
prairie wedge grass (*Sphenopholis obtusata*)	CRPR 2.2	Mesic habitat in cismontane woodland and meadows and seeps. 300-2000m (984-6562ft)	Low	No suitable habitat occurs on-site.

Common Name (*Scientific Name*)	**Sensitivity Code & Status**	**Habitat Preference/Requirements**	**Potential to Occur**	**Rationale**
purple stemodia (*Stemodia durantifolia*)	CRPR 2.1 SD County List B	Sonoran desert scrub (often mesic, sandy). 180-300m (591-984ft)	Low	No suitable habitat occurs on-site.
San Diego County needle grass (*Stipa diegoensis*) (=*Achnatherum diegoense*)	CRPR 4.2 SD County List D	Rocky, often mesic habitats in chaparral and coastal scrub. 10 - 800 m (33-2625 ft)	Moderate	Suitable habitat occurs within the study area.
San Bernardino aster (*Symphyotrichum defoliatum*)	CRPR 1B.2	Near ditches, streams, springs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland (vernally mesic). 2-2040m (7-6693ft)	Not expected	Records for San Diego County indicate this species occurs at higher elevations east of the project site. Not known from project vicinity.
Parry's tetracoccus (*Tetracoccus dioicus*)	CRPR 1B.2 SD County List A MSCP	Gabbroic soils in chaparral. Below 1000m (3280ft).	Not expected	No suitable soils occur within the study area.
velvety false lupine (*Thermopsis californica var. semota*)	CRPR 1B.2 SD County List A	Cismontane woodland, lower montane coniferous forest, meadows and seeps, and valley and foothill grassland. 1000-1870m (3281-6135ft)	Not expected	Mountain species. Outside of the expected range for this species.
coastal triquetrella (*Triquetrella californica*)	CRPR 1B.2	Soil in coastal bluff scrub and coastal scrub. 10-100m (33-328ft)	Not expected	Coastal species. Outside of the known range for this species.
rush-like bristleweed (*Xanthisma junceum*)	CRPR 4.3	Chaparral and coastal scrub. 240-1000m (787-3281ft). Uncommon, dry hillside, mafic or clay soils.	Low	Project site does not have suitable soil

Wildlife

Common Name (*Scientific Name*)	**Sensitivity Code & Status**	**Habitat Preference/Requirements**	**Potential to Occur**	**Rationale**
Hermes Copper (*Lycaena hermes*)	SD County Group 1	Found in southern mixed chaparral and coastal sage scrub that support its host plant, spiny redberry (*Rhamnus crocea*).	Moderate	Suitable habitat and host plants present within the study area.
Tricolored blackbird (*Agelaius tricolor*)	CSC SD County Group 1 MSCP	Freshwater marshes, swamps and wetlands.	Low	Site lacks suitable habitat.
Grasshopper sparrow (*Ammodramus savannarum*)	CSC SD County Group 1	Grasslands	Moderate	Not observed in or adjacent to the project impact areas.
Arroyo toad (*Anaxyrus californicus*)	FE CSC SD County Group 1 MSCP	Found near water; Desert wash, riparian scrub and riparian woodland. Found below 2440 m	Low	No appropriate breeding habitat found onsite. While this species may disperse 1km from washes, the survey area is extremely steep and unlikely to support dispersing toads.
Silvery legless lizard (*Anniella pulchra pulchra*)	CSC SD County Group 2	Chaparral, coastal dunes and coastal scrub.	Low	Suitable habitat present within the study area.
Pallid bat (*Antrozous pallidus*)	CSC SD County Group 2	Grasslands, shrublands, woodlands, and forests, including mixed conifer forest; open, dry, rocky lowlands; roost in caves, mines, rocks.	Low	Potential roost habitat (gated flume tunnel) occurs within survey area. May forage in the area.
Golden eagle (*Aquila chrysaetos*)	FP SD County Group 2 MSCP	Grasslands, sage scrub, or broken chaparral.	Nesting: Low Foraging: Moderate	Historical nests known from El Cajon Mountain. No suitable nesting habitat present within the study area.

Common Name (*Scientific Name*)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
Orangethroated whiptail (*Aspidoscelis hyperythra*)	CSC SD County Group 2 MSCP	Chaparral, non-native grassland, coastal sage scrub, juniper woodland, and oak woodland.	Moderate	Suitable habitat is present onsite. Not observed during spring survey.
Burrowing owl (*Athene cunicularia*)	CSC SD County Group 1 MSCP	Valley and foothill grassland, Coastal prairie, coastal scrub.	Low	Suitable habitat does not occur on-site.
San Diego fairy shrimp (*Branchinecta sandiegonensis*)	FE SD County Group 1 MSCP	Vernal pools. All known localities are below 701m (2,300 ft) and are within 64km (40 miles) of the Pacific Ocean	Not expected	No suitable habitat on site.
Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*)	CSC SD County Group 1 MSCP	Dense Coastal scrub	Not expected	No suitable cactus habitat within the study area
Dulzura pocket mouse (*Chaetodipus californicus femoralis*)	CSC SD County Group 2	Dense chaparral. Occurs below 2408 m (7900 ft). Inactive in cold weather.	Low	Some suitable habitat is present on site. Not observed during the surveys.
Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)	CSC SD County Group 2	Open, sandy areas in coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	Low	Some suitable habitat is present on site. Not observed during the surveys.
Mexican long-tongued bat (*Choeronycteris Mexicana*)	CSC SD County Group 2	Variety of arid habitats (lower and upper Sonoran life zones) Roosts include mine, caves, tunnels, buildings.	Low	Potential roost habitat (gated flume tunnel) occurs within survey area. May forage in the area.
Townsend's big-eared bat (*Corynorhinus townsendii*)	CSC SD County Group 2	Occurs in a variety of habitats (desert scrub, grasslands, shrub lands, woodlands, and forests). Roosts include rock outcrops, mines, caves, tree hollows, buildings, and bridges.	High	No roosts were observed during the field survey. However, this species was detected in EL Monte Park during a bat survey in 2008.

Common Name (*Scientific Name*)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
Red-diamond rattlesnake (*Crotalus ruber*)	CSC SD County Group 2	Variety of vegetation types. Commonly along coastal and desert slopes with heavy brush, cactus, rocks or boulders.	Moderate	Some suitable habitat occurs in within the study area.
Stephens' kangaroo rat (*Dipodomys stephensi*)	FE ST SD County Group 1	Native to open grasslands and sparse coastal sage scrub where it burrows and feeds primarily on seeds.	Low	Low quality habitat and soils present within the study area
White-tailed kite (*Elanus leucurus*)	CSC SD County Group 1	Open grasslands, agricultural areas, wetlands, and oak woodlands.	Nesting: Moderate Foraging: Moderate	Some suitable habitat occurs in the area.
Southwestern willow flycatcher (*Empidonax traillii extimus*)	FE SE SD County Group 1 MSCP	Dense riparian habitats along rivers, streams, or other wetlands.	Not expected	No suitable riparian habitat occurs within the study area.
Southwestern pond turtle (*Emys marmorata pallida*)	CSC SD County Group 1 MSCP	Slack- or slow-water aquatic habitat with basking sites.	Not expected	No suitable aquatic habitat occurs within the study area.
Large-blotched salamander (*Ensatina klauberi*)	CSC SD County Group 1	In habits moist shaded evergreen and deciduous forests and oak woodlands. Usually found under rocks, logs, other debris, especially bark that has peeled off and fallen beside logs and trees	Low	Low quality suitable habitat occurs within the study area.
Western mastiff bat (*Eumops perotis californicus*)	CSC SD County Group 2	Occurs in a variety of habitat (desert scrub to chaparral and mixed conifer forests). Roost sites include crevices and cracks in cliff faces and boulders.	High	No suitable roost habitat occurs on site. However, this species was detected in EL Monte Park during a bat survey in 2008.

Common Name (*Scientific Name*)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
Quino checkerspot butterfly (*Euphydryas editha quino*)	FE SD County Group 1	Sunny openings in coastal sage scrub and chaparral that support its primary larval host plant, *Plantago erecta*.	Low	Low quality habitat occurs within the study area.
Yellow-breasted chat (*Icteria virens*)	CSC SD County Group 1	Dense stands of riparian woodland.	Low	No riparian woodland present within the study area.
California mountain kingsnake (San Diego population) (*Lampropeltis zonata (pulchra*))	CSC SD County Group 2	Found in diverse habitats including coniferous forest, oak-pine woodlands, riparian woodland, chaparral, manzanita, and coastal sage scrub	Moderate	Suitable habitat is present within the area
Western red bat (*Lasiurus blossevillii*)	CSC SD County Group 2	Occurs in riparian and woodland habitats. Roosts include trees, within foliage.	High	No roosts were observed during the field survey. However, this species was detected in EL Monte Park during a bat survey in 2008.
Western yellow bat (*Lasiurus xanthinus*)	CSC	Occurs in fan palm oases and associated riparian habitats.	High	No roosts were observed during the field survey. However, this species was detected in EL Monte Park during a bat survey in 2008.
San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)	CSC SD County Group 1	Open habitats in deserts, irrigated croplands, high mountains to 2500 m (8200ft)	Low	Site lacks suitable habitat.
Hermes copper (*Lycaena hermes*)	SD County Group 1	Coastal sage scrub, southern mixed chaparral supporting its host plant, spiny redberry (*Rhamnus crocea*). Spiny redberry and nectar plants (Eriogonum fasciculatum) are typically no more than 3 m apart.	Low	Spiny redberry within the survey area is sparsely distributed and does not occur adjacent to suitable nectar sources.
San Diego desert woodrat (*Neotoma lepida intermedia*)	CSC SD County Group 2	Desert and coastal sage scrub with rocky outcrops and succulents. Below 2591m (8500ft)	Low	Coastal sage scrub habitat within the study area lacks high quality, xeric rock outcrops preferred by this species.

Common Name (*Scientific Name*)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
Pocketed free-tailed bat (*Nyctinomops femorosaccus*)	CSC SD County Group 2	Found in the low Colorado Desert and coastal areas of southern California. It is associated with a variety of habitats, including chaparral. Roosts include crevices in cliff faces and boulders, cave, mines, buildings, and bridges.	High	No roosts were observed during the field survey. However, this species was detected in EL Monte Park during a bat survey in 2008.
Big free-tailed bat (*Nyctinomops macrotis*)	CSC SD County Group 2	Associated with rocky country, habitats include arroyo scrub, desert and woodland habitats.	Low	No roosts were observed during the field survey. Site lacks suitable roosting habitat.
coast horned lizard (*Phrynosoma blainvillii*)	CSC SD County Group 2 MSCP	Coastal sage, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest. Loose, fine soils with high sand content.	High	Suitable habitat and food source is present. Not observed during the surveys.
purple martin (*Progne subis*)	CSC SD County Group 1	Associated with open county, riparian and oak woodlands, savanna, rural areas, near water and open areas for foraging. Nests in tree holes, cliff, niche, or other cavity. Rare summer visitor, restricted almost entirely to the mountains.	Low	Site is outside of currently know breeding areas and below known elevation range in San Diego County.
Coronado Island skink (*Plestiodon skiltonianus interparietalis*)	CSC SD County Group 2	Moist areas of coastal sage, chaparral, oak woodlands, pinon-juniper, riparian woodlands and pine forests.	Low	Suitable habitat is present outside of the project impact areas. Not observed during the surveys.
Coastal California gnatcatcher (*Polioptila californica californica*)	FT CSC SD County Group 1 MSCP	Coastal sage-chaparral scrub and open chaparral.	Low	Marginally suitable habitat is present within the study area. Not observed during the surveys.

Common Name (*Scientific Name*)	**Sensitivity Code & Status**	**Habitat Preference/Requirements**	**Potential to Occur**	**Rationale**
Coast patch-nosed snake (*Salvadora hexalepis virgultea*)	CSC SD County Group 2	Generalists; thrive in many environments with vegetative cover.	Low	Not expected. Some suitable habitat occurs within the study area, but not near the project area.
Western spadefoot (*Spea hammondii*)	CSC SD County Group 2	Vernal pools. Require rain pool persisting for 3 weeks, then soil for digging.	Not expected	No suitable aquatic habitat present within the study area.
California Newt (*Taricha torosa*)	SD County Group 2	In habits moist shaded evergreen and deciduous forests and oak woodlands. Usually found under rocks, logs, other debris, especially bark that has peeled off and fallen beside logs and trees.	Moderate	Oak woodland present within the study area may provide habitat for this species.
American badger (*Taxidea taxus*)	SD County Group 2 MSCP	Grasslands, savannas, and meadows, with friable soils.	Low	Low quality habitat present within the study area.
Two-striped garter snake (*Thamnophis hammondii*)	CSC SD County Group 1	Found near water. Streams, riverbeds with thick riparian vegetation. Below 2438m (8000ft).	Not expected	No suitable riparian habitat occurs within the study area.
Least Bell's vireo (*Vireo bellii pusillus*)	FE SE SD County Group 1 MSCP	Lowland riparian habitats.	Not expected	No suitable riparian habitat occurs within the study area.

Common Name (*Scientific Name*)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale

Legend:
Status:
Federal
FE - Listed as endangered under the federal Endangered Species Act.
FT - Listed as threatened under the federal Endangered Species Act.
FC – Candidate for listing under the federal Endangered Species Act.
State
SE - Listed as endangered under the California Endangered Species Act.
ST – Listed as threatened under California Endangered Species Act.
SR – Listed as rare under California Endangered Species Act.
CA Rare Plant Rank (CRPR) – Formerly known as CNPS List
1A. Presumed extinct in California
1B. Rare or Endangered in California and elsewhere
2. Rare or Endangered in California, more common elsewhere
3. Plants for which we need more information - Review list
4. Plants of limited distribution - Watch list
Threat Ranks
.1 - Seriously endangered in California
.2 – Fairly endangered in California
.3 – Not very endangered in California
San Diego County
Plants
List A – Rare, threatened or endangered in California and elsewhere
List B – Rare, threatened or endangered in California but more common elsewhere
List C – Maybe quite rare, but more information is needed to determine their status
List D – Limited distribution and are uncommon but not presently rare or endangered
Animals
Group 1 - includes those that have a very high level of sensitivity, either because they are listed as threatened or endangered or because they have very specific natural history requirement that must be met.
Group 2 - includes those species that are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action.
MSCP – Covered species under the Multiple Species Conservation Program, San Diego County Subarea
References:
Special Status plant information from CDFG 2012. Nomenclature and plant descriptions from CNPS Online Inventory, Calflora.org, Baldwin 2012, Lightner 2011, Reiser 2001, Roberts 1989. Range information from CNDDB 2012, CNPS 2012, and SDNHM Plant Atlas Project 2012.

Special Status animal information from CDFG 2012. Nomenclature and invertebrate descriptions from USFWS 2008. Nomenclature and vertebrate descriptions from AOU 1998 and supplements, Collins and Taggart 2012, Baker et.al. 2003, Wilson and Cole 2005, Unitt 2004.

ATTACHMENT 5

JURISDICTIONAL DELINEATION REPORT

JURISDICTIONAL DELINEATION REPORT FOR THE FLUME TRAIL PROJECT

■ County of San Diego Department of Parks and Recreation ■ July 2012

ICF INTERNATIONAL

JURISDICTIONAL DELINEATION REPORT FOR THE FLUME TRAIL PROJECT

PREPARED FOR:

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July 2012

ICF INTERNATIONAL

ICF International. 2012. Jurisdictional Delineation Report for the Flume Trail Project. July (ICF 00026.12) San Diego, CA. Prepared for County of San Diego Parks and Recreation, San Diego, CA.

Contents

Acronyms and Abbreviations

CDFG	California Department of Fish and Game
CFR	Code of Federal Regulations
County	County of San Diego
CWA	Clean Water Act
DPR	Department of Parks and Recreation
EPA	U.S. Environmental Protection Agency
FAC	facultative
FACW	facultative wetland
GPS	Global Positioning System
ICF	ICF International
JDs	jurisdictional delineations
MSCP	Multiple Species Conservation Program
OBL	obligate
OHWM	ordinary high-water mark
Porter-Cologne	Porter-Cologne Water Quality Control Act
project	Flume Trail Project
RGL	Regulatory Guidance Letter
RPWs	Relatively permanent waters
RWQCB	Regional Water Quality Control Board
SS	state streambeds
SWANCC	Solid Waste Agency of North Cook County
SWRCB	State Water Resources Control Board
TNWs	traditional navigable waters
USACE	United States Army Corps of Engineers
USC	United States Code
USDA	US Department of Agriculture
WoS	Waters of the State
WoUS	Waters of the U.S.

Executive Summary

ICF International (ICF) was retained by the County of San Diego (County) Department of Parks and Recreation (DPR) to conduct a routine-level delineation of jurisdictional waters and wetlands in the vicinity of the proposed Flume Trail that would connect to the recently constructed El Monte Trail at El Monte Park in Lakeside, California.

The proposed project would construct approximately 2.5 miles of trail within an existing 10-foot wide bench cut of the 50-foot wide, County-owned parcel of the historic flume alignment. If needed to avoid or minimize impacts to existing drainage channels, an additional 20-foot-wide trail easement located immediately adjacent to the southern boundary of the historic flume alignment may be used.

The purpose of this delineation was to identify the locations and extent of jurisdictional waters along the proposed trail alignment in order to avoid or minimize impacts to jurisdictional resources resulting from construction of the proposed trail. Relevant jurisdictions include federal waters regulated by the United States Army Corps of Engineers (USACE) as Waters of the U.S. (WoUS) or USACE wetlands, state waters regulated by the Regional Water Quality Control Board (RWQCB) as Waters of the State (WoS), and state streambeds (SS) regulated by the California Department of Fish and Game (CDFG).

A total of 12 ephemeral drainage features were identified along the proposed alignment of the Flume Trail, all of which were determined to be non-wetland waters under the joint jurisdiction of the USACE, CDFG, and RWQCB. These unnamed drainage features measure 2-feet to 5-feet wide and are likely direct tributaries to the San Diego River. Construction of a 10-foot-wide trail along the proposed alignment would result in a total of 340 square feet of impacts to drainage features determined to be regulated as USACE WoUS, RWQCB WoS, and CDFG SS. If a structural crossing is constructed at drainage feature #7, impacts to approximately 30 square feet would be avoided for a total impact of 310 square feet. Alternatively, if additional trail easements are obtained and the alternative trail alignment near drainage features 7 and 8 is constructed, impacts to a approximately 30 square feet would be avoided (for a total of 310 square feet of impacts) as the proposed crossing would occur downstream where features 7 and 8 merge into one approximately 4-foot-wide feature.

Potential impacts to the identified drainage features may result from foot, bicycle, and equestrian traffic associated with the use of the proposed trail in its finished condition, and may require a nationwide 404 permit from USACE, a CDFG section 1602 Streambed Alteration Agreement (SAA) from CDFG, and a Water Quality Waiver or 401 Certification from the RWQCB.

Since the drainage features within the project area lack wetland vegetation, the construction and presence of a trail through these features would not affect wetland vegetation; therefore, construction of the proposed trail would not result in the net loss of jurisdictional wetlands, and will not substantially alter the biological functions and values of the streambeds. The construction of the trail will not alter the topography or hydrology of the streambed, and will allow for continued water flow through the area. Therefore, compensatory mitigation is not anticipated to be required.

Chapter 1
Introduction

This report documents a routine-level jurisdictional delineation performed along the proposed alignment of a 2.5-mile trail that would follow the historic flume alignment and connect to the recently constructed El Monte Trail at the County of San Diego (County) Department of Parks and Recreation's (DPR's) El Monte Park. The delineation's purpose was to identify potential Section 404 wetlands, State Wetlands, Waters of the United States (WoUS), Waters of the State (WoS), and state streambed (SS) subject to California Fish and Game Code 1600 within and adjacent to the proposed trail alignment.

This preliminary jurisdictional delineation report describes the study area and existing conditions, discusses the regulations that govern the area, outlines the methodology used to conduct the delineation, and presents the results of the study. These results show the potentially jurisdictional resources found within the project site that may be subject to regulation by the USACE, State Water Resources Control Board (SWRCB), and CDFG.

Project Description

The proposed Flume Trail Project (project) would construct approximately 2.5 miles of trail within an existing 10-foot wide bench cut of the 50-foot wide, County-owned parcel of the historic flume alignment. If needed to avoid or minimize impacts to existing drainage channels, an additional 20-foot-wide trail easement located immediately adjacent to the southern boundary of the historic flume alignment may be used.

Project Location

The proposed Flume Trail would connect to the recently constructed El Monte Park Trail located in the County's El Monte Park in Lakeside, California (Figures 1 and 2). The El Monte Park Trail is located south of El Monte Road, approximately 3.5 miles northeast of the intersection of El Monte Road and Lake Jennings Park Road. The project is located within the approved south county subarea of the County's Multiple Species Conservation Program (MSCP).

Environmental Setting

The proposed Flume Trail alignment occurs at an elevation ranging from approximately 650 to 900 feet above mean sea level and generally runs in an east-west direction south of El Monte Park. The proposed Flume Trail would connect to the recently constructed and well-maintained El Monte Park Trail. The study area includes the 50-foot for the delineation is characterized by the overgrown bench cut along the historic flume alignment and surrounding vegetation, which consists primarily of burned and unburned southern mixed chaparral, burned coastal sage scrub, coast live oak woodland, and non-native grassland.

The proposed project site is underlain by Cieneba-Fallbrook rocky sandy loam (30-65% slopes, eroded) and Cieneba coarse sandy loam (30-65% slopes, eroded). The Cieneba series is characterized as shallow to very shallow, excessively drained coarse sandy loams formed from granitic rock (Bowman 1973).

Chapter 2
Regulatory Background

The following sections summarize the regulations imposed on each type of jurisdictional feature potentially present in the vicinity of the proposed Flume Trail.

U.S. Army Corps of Engineers Regulated Activities

USACE-regulated activities under Section 404 of the Clean Water Act (CWA) involve a discharge of dredged or fill material into WoUS. A discharge of fill material includes, but is not limited to, grading, placing riprap for erosion control, pouring concrete, laying sod, and stockpiling excavated material into WoUS. Activities that generally do not involve a regulated discharge (if performed specifically in a manner to avoid discharges) include driving pilings, performing some drainage channel maintenance activities, constructing temporary mining and farm/forest roads, and excavating without stockpiling.

Waters of the U.S.

WoUS, as defined in the Code of Federal Regulations (CFR) title 33, section 328.3, include all waters or tributaries to waters, such as lakes, rivers, intermittent and perennial streams, mudflats, sand flats, natural ponds, wetlands, wet meadows, and other aquatic habitats.

Frequently, a WoUS (with at least intermittently flowing water or tidal influences) is demarcated by the ordinary high-water mark (OHWM), defined in CFR 328.3(e) as:

> that line on the shore established by the fluctuations of water and indicated by physical characteristics such as [a] clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Where an OHWM is present, waters may be defined as WoUS when connectivity is determined to be present.

Wetlands

According to the *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* (Federal Interagency Committee for Wetland Delineation 1989), three criteria must be satisfied to classify an area as a jurisdictional wetland: (1) a predominance of plant life that is adapted to life in wet conditions (hydrophytic vegetation); (2) soils that saturate, flood, or pond long enough during the growing season to develop anaerobic conditions in the upper part (hydric soils); and (3) permanent or periodic inundation or soils saturation, at least seasonally (wetland hydrology) (Environmental Laboratory 1987).

USACE will continue to assert jurisdiction over:

1. traditional navigable waters (TNWs) and their adjacent wetlands;

2. nonnavigable tributaries of TNWs that are relatively permanent (e.g., tributaries that typically flow year-round or have a continuous flow at least seasonally) and wetlands that directly abut such tributaries (e.g., not separated by uplands, berm, dike, or similar feature) (note: relatively permanent waters [RPWs] do not include ephemeral tributaries, which flow only in response to precipitation, and intermittent streams, which do not typically flow year-round or have continuous flow at least seasonally [e.g., typically three months]); and
3. non-RPWs if determined (in a fact-specific analysis) to have a significant nexus with a TNW, including nonnavigable tributaries that do not typically flow year-round or have continuous flow at least seasonally, wetlands adjacent to such tributaries, and wetlands adjacent to but not directly abutting a relatively permanent nonnavigable tributary. Absent a significant nexus, jurisdiction is lacking.

Approved Jurisdictional Determinations

An approved JD is an official USACE determination that jurisdictional or navigable WoUS are either present or absent on a particular site. The approved JD precisely identifies the limits of those waters on the project site. Approved JDs are documented in accordance with Regulatory Guidance Letter (RGL) 07-01 and require the use of the approved JD form (*Rapanos* form). An approved JD form is completed for each reach of each tributary on the project site and is reviewed by USACE and EPA. Legally, an approved JD represents USACE's official determination that the JD's findings are correct, is valid for five (5) years, can be used and relied upon in a CWA citizen's lawsuit if its legitimacy is challenged (except under extraordinary circumstances), and can be immediately appealed (33 CFR Part 331).

Preliminary Jurisdictional Determinations

Under RGL 08-02, dated June 26, 2008, USACE established an alternative to the approved JD process: the "preliminary JD." A preliminary JD is a non-binding written indication that there may be WoUS, including wetlands, on a project site and identifies the approximate location of these features. Preliminary JDs are used when a landowner, permit applicant, or other affected party elects to voluntarily waive or set aside questions regarding CWA jurisdiction over a particular site, usually in the interest of allowing the landowner to move ahead expeditiously to obtain 404 authorization where the party determines that it is in his or her best interest to do so. A preliminary JD is not an official determination regarding the jurisdictional status of potentially jurisdictional features and has no bearing on approved JDs. A preliminary JD cannot be used to confirm the absence of jurisdictional waters or wetlands, is advisory in nature, and cannot be appealed. It is considered "preliminary" because a recipient can later request an approved JD if one is necessary or appropriate.

Finally, although a preliminary JD may be chosen by the applicant, the district engineer reserves the right to use an approved JD where warranted. A preliminary JD is documented using the preliminary JD form, provided as Attachment 1 to RGP 08-02. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD treats all waters and wetlands that would be affected in any way except by the permitted activity as if they are jurisdictional. This report presents a preliminary jurisdictional determination.

2011 Draft Clean Water Act Guidance

On April 27, 2011, USACE and EPA issued draft guidance for determining jurisdiction under the CWA. The guidance supersedes the previous guidance from 2003 regarding *SWANCC* (68 Federal Register 1991–1995) and the 2007 *Rapanos* guidance. This document reiterated the guidance issued under the *Rapanos* decision, asserting that the following waters are protected by the CWA:

- Traditional navigable waters
- Interstate waters
- Wetlands adjacent to either traditional navigable waters or interstate waters
- Non-navigable tributaries to traditional navigable waters that are relatively permanent (meaning they contain water at least seasonally)
- Wetlands that directly abut relatively permanent waters

The guidance further clarifies the criteria for defining TNWs consistent with previous guidance. In addition, a significant nexus evaluation is required for the "other waters" category of the regulations (see item 3 in Section 2.1.1, above). The guidance divides these waters into two categories (i.e., those that are physically proximate to other jurisdictional waters and those that are not) and discusses how each category should be evaluated.

State Water Resources Control Board Regulated Activities/Regional Water Quality Control Board

In California, the SWRCB and nine Regional Water Quality Control Boards (RWQCB) regulate activities within state and federal waters under Section 401 of the CWA and the state Porter-Cologne Act. The SWRCB is responsible for setting statewide policy, coordinating and supporting the RWQCB efforts, and reviewing petitions that contest RWQCB actions. Each semi-autonomous RWQCB sets water quality standards, issues 401 certifications and waste discharge requirements, and take enforcement action for projects occurring within their boundary. However, when a project crosses multiple RWQCB jurisdictional boundaries, the SWRCB becomes the regulating agency for both of these acts and issues project permits.

Section 401 of the Clean Water Act

Section 401 of the CWA requires that

> any applicant for a federal permit for activities that involve a discharge to waters of the United States shall provide the federal permitting agency a certification from the state in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the federal Clean Water Act.

Therefore, in California, before USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 water quality certification or waiver from the RWQCB or SWRCB, as applicable. Under Section 401 of the CWA, the SWRCB/RWQCB regulates at the state level all activities that are regulated at the federal level by USACE. Therefore, SWRCB/RWQCB jurisdiction usually matches the jurisdictional boundaries for WoUS (mapped at the OHWM). However, if waters

are determined not to be WoUS, they may still be subject to SWRCB/RWQCB jurisdiction based on the Porter-Cologne Act.

Porter-Cologne Act

The RWQCB regulates activities that would involve "discharging waste, or proposing to discharge waste, within any region that could affect waters of the state" (California Water Code 13260[a]), pursuant to provisions of the state Porter-Cologne Act. Waters of the State (WoS) are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050 [e]). Such waters may include waters not subject to regulation under Section 404 (i.e., isolated features).

California Department of Fish and Game Regulated Activities

Under recently revised California Fish and Game Code, Sections 1600–1616, CDFG has the authority to regulate work that will substantially divert or obstruct the natural flow—or substantially change or use any material from the bed, channel, or bank—of any river, stream, or lake. CDFG also has the authority to regulate work that will deposit or dispose of debris, wastewater, or other material containing crumbled, flaked, or ground pavement that may pass into any river, stream, or lake. This regulation takes the form of a requirement for a Lake or Streambed Alteration Agreement and is applicable to all work involving state or local government discretionary approvals.

Section 1602 of the California Fish and Game Code

The California Fish and Game Code mandates that

> it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds, without first notifying the department of such activity.

CDFG jurisdiction includes ephemeral, intermittent, and perennial watercourses (including dry washes) and lakes characterized by the presence of (1) definable bed and banks and/or (2) existing fish or wildlife resources. Furthermore, CDFG jurisdiction is often extended to habitats adjacent to watercourses, such as oak woodlands in canyon bottoms or willow woodlands that function hydrologically as part of the riparian system. Historical court cases have further extended CDFG jurisdiction to include watercourses that seemingly disappear but re-emerge elsewhere. Under the CDFG definition, a watercourse need not exhibit evidence of an OHWM to be claimed as jurisdictional.

Chapter 3
Methodology

Project Research

To prepare for a field visit, delineators obtained an aerial photograph (1 inch = 200 feet) of the site and used it to identify potential site features such as vegetation types, topographic changes, or visible drainage patterns.

Additionally, the US Department of Agriculture (USDA) soil survey map (Bowman 1973) was reviewed to identify the soil series that were mapped in the study area.

Field Delineation Methods

ICF biologists Dale Ritenour and Doug Allen completed the jurisdictional delineation along the proposed Flume Trail alignment on May 21, 2012. Potential features identified were then investigated further to determine whether they met the criteria of a potentially jurisdictional feature. All features meeting the USACE guidance criteria were delineated. The study area for the delineation included the 50-foot-wide County-owned portion of the historic flume alignment and the adjacent 20-foot-wide trail easement. In addition, to the extent feasible from within the 70-foot-wide study area, the delineators collected data regarding the presence or absence of jurisdictional resources upstream and downstream of the 70-foot-wide study area. The delineation was not conducted during the rainy season and the region received no significant rainfall within the last several weeks before the delineation was conducted. Rainfall patterns during May 2012 were not atypical for that month.

Delineated boundaries of all features identified within the study area were recorded using Trimble® GeoXT Global Positioning System (GPS) technology with sub-meter accuracy. Vegetation within the vicinity of the proposed Flume Trail was mapped within the study area and a 100-foot buffer on a 1"=100' aerial photograph (Figure 3).

All features identified during the field visit were recorded through a routine-level wetland delineation. Non-wetland jurisdictional WoUS were identified during the jurisdictional delineation; no jurisdictional wetlands were identified within or immediately adjacent to the survey area.

ICF's methods for delineating federal wetlands follow the guidelines set forth by the USACE in the *Arid West Manual* (USACE 2008b). The routine onsite determination method can be used to gather field data at potential wetland areas for most projects. Visual observations of vegetation types and hydrology are used to locate areas for evaluation. Then, at each evaluation area, several parameters are considered to determine whether the sample point is within a wetland.

Three criteria normally must be fulfilled in order to classify an area as a jurisdictional USACE wetland: (1) a predominance of hydrophytic vegetation, (2) the presence of hydric soils, and (3) the presence of wetland hydrology. Details of the application of these techniques are described below.

- **Hydrophytic Vegetation.** The hydrophytic vegetation criterion is satisfied at a location if greater than 50% of all the dominant species present within the vegetation unit have a wetland indicator status of obligate (OBL), facultative wetland (FACW), or facultative (FAC) (USACE 1987). An *OBL indicator status* refers to plants that have a 99% probability of occurring in wetlands under natural conditions. A *FACW indicator status* refers to plants that usually occur in wetlands (67 to 99% probability) but are occasionally found elsewhere. A *FAC indicator status* refers to plants that are equally likely to occur in wetlands or elsewhere (estimated probability 34 to 66% for each). The wetland indicator status used for this report follows the *National List of Plant Species that Occur in Wetlands: California (Region 0)* (U.S. Fish and Wildlife Service 1988).
- **Hydric Soils.** The hydric soil criterion is satisfied at a location if soils in the area can be inferred or observed to have a high groundwater table, if there is evidence of prolonged soil saturation, or if there are any indicators suggesting a long-term reducing environment in the upper 18 inches of the soil profile. Reducing conditions are most easily assessed using soil color. Soil colors were evaluated using the *Munsell Soil Color Charts* (Kollmorgen Corporation 1975).
- **Wetland Hydrology.** The wetland hydrology criterion is satisfied at a location based upon conclusions inferred from field observations that indicate an area has a high probability of being inundated or saturated (flooded, ponded, or tidally influenced) long enough during the growing season to develop anaerobic conditions in the surface soil environment, especially the root zone (USACE 1987, 2008a, 2008b).

Areas meeting all three of these parameters are generally designated as USACE wetlands. If the delineator cannot confirm the presence of all three parameters, but nevertheless strongly believes the area to be a wetland, supporting information can be added to the delineation data sheet or report regarding the delineator's determination.

Delineation of Potential Non-Wetland Waters of the U.S.

ICF methods for the delineation of non-wetland WoUS was based on indicators for OHWM, following established criteria outlined in the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a), and *A Field Guide to the Identification of the OHWM in the Arid West Region of the Western United States* (USACE 2008b).

All jurisdictional features within the study area were determined by the presence of OHWM indicators. This field guide presents a method for delineating the lateral extent of the WoUS in the Arid West using stream geomorphology and vegetation response to the dominant stream discharge. ICF biologists used this guidance in the field to determine the OHWM for all potentially jurisdictional nonwetland waters.

The field guide describes physical evidence that should be used to ascertain the lateral limits of jurisdiction; generally more than one physical indicator or other means for determining the OHWM is used. The following physical indicators of OHWM were used in the field:

- Natural line impressed on the bank
- Shelving
- Destruction of terrestrial vegetation

- Presence of litter and debris
- Wracking
- Vegetation matted down, bent, or absent
- Sediment sorting
- Leaf litter disturbed or washed away
- Scour
- Deposition
- Bed and banks
- Water staining
- Change in plant community.

Evaluation of SWRCB/RWQCB jurisdiction followed guidance from Section 401 of the CWA and follows the same jurisdictional areas as USACE, unless an isolated water is determined to be present. Isolated water features are not considered jurisdictional under USACE, but are still delineated using the OHWM or wetted area. Isolated water bodies are considered SWRCB/RWQCB jurisdictional under the Porter-Cologne Act.

Delineation of CDFG Jurisdiction

Evaluation of California Fish and Game Code jurisdiction followed the guidance of standard practices by CDFG personnel. CDFG jurisdiction was delineated by measuring the width of top of bank of watercourses, which equaled the bed and bank limits in these small systems, all of which are deeply incised under the currently existing condition. Riparian vegetation was not observed within the study area.

Chapter 4
Results and Jurisdictional Impacts

Discussion

A total of 12 ephemeral drainage features were observed along the proposed alignment of the Flume Trail (Figures 4a-4e; Table 1). As these areas did not support any hydrophytic vegetation (one of the three criteria needed to qualify as a wetland), soil pits were not dug.

Table 1. Jurisdictional Delineation Summary

Feature	Feature Width	U.S. and State Non-Wetland Waters (square feet/acres)	U.S. and State Wetland Waters (square feet)	U.S. and State Non-Wetland Waters Linear Feet	CDFG Streambed (square feet/acres)	CDFG Riparian (square feet)	CDFG Linear Feet
Drainage 1	2	196/0.004	0.0	98	96/0.004	0.0	98
Drainage 2	3	240/0.005	0.0	80	240/0.005	0.0	80
Drainage 3	2	172/0.004	0.0	86	172/0.004	0.0	86
Drainage 4	3	228/0.005	0.0	76	228/0.005	0.0	76
Drainage 5	3	222/0.005	0.0	74	222/0.005	0.0	74
Drainage 6	3	222/0.005	0.0	74	222/0.005	0.0	74
Drainage 7	3	237/0.005	0.0	79	237/0.00	0.0	79
Drainage 8	4	312/0.007	0.0	78	312/0.007	0.0	78
Drainage 9	2	142/0.003	0.0	71	142/0.003	0.0	71
Drainage 10	2	156/0.004	0.0	78	156/0.004	0.0	78
Drainage 11	2	154/0.004	0.0	77	154/0.004	0.0	77
Drainage 12	5	400/0.009	0.0	80	400/0.009	0.0	80
Total	**--**	**2,681 (0.060 acre)**	**0.0**	**951**	**2,681 (0.060 acre)**	**0.0**	**951**

Other erosional features were observed along the proposed alignment of the Flume Trail. These areas did not exhibit a defined bed and bank within the survey area and no other indicators of wetland hydrology or hydrophytic vegetation were observed. Therefore, these areas would not fall under the jurisdiction of the USACE, CDFG, or RWQCB and are not discussed further in this report.

Vegetation

The bench cut of the historic flume alignment was previously cleared of vegetation; however, it is currently overgrown. The proposed alignment of the Flume Trail traverses through non-native grasslands, oak woodlands, burned and unburned southern mixed chaparral, burned coastal sage scrub, and disturbed habitat. Riparian vegetation communities were not observed within or immediately adjacent to the 70-foot-wide survey area.

Hydrology

A total of 12 ephemeral drainage features were observed to cross the proposed alignment of the Flume Trail. It is likely that all these features eventually connect to the San Diego River. OHWM characteristics observed within these drainage features during the site visit included: presence of bed and bank and a natural line impressed on the bank. The low-flow bed-and-bank channels average approximately 2 to 5 feet wide. Based on direct observations during the field delineation, these 12 drainages were determined to clearly convey flows (at least intermittently) and they were determined not to support jurisdictional wetlands.

Soils

The soils surrounding and within the 12 drainage features are mapped as Cieneba-Fallbrook rocky sandy loam (30-65% slopes, eroded) and Cieneba coarse sandy loam (30-65% slopes, eroded). The Cieneba series is characterized as shallow to very shallow, excessively drained coarse sandy loams formed from granitic rock (Bowman 1973).

Determination

The three criteria of hydrophytic vegetation, hydrology, and soils necessary to delineate an area as a wetland were all absent from the 12 identified drainage features; therefore, none of the drainage features were identified as wetlands. All 12 drainage features contain bed and banks and convey intermittent flows. The 12 drainage features feed into the San Diego River valley and are assumed to have direct surface connection to the San Diego River, a relatively Permanent Water (RPW) tributary to the Pacific Ocean, a Traditionally Navigable Water (TNW). Private property outside of the survey area was not accessed, which would be necessary to definitively establish a continuous OHWM and bed-and-bank connection to the San Diego River. The 12 drainage features would be regulated by the USACE as non-wetland WoUS and the RWQCB as WoS.

The 12 drainage features had bed and bank features and intermittently convey flows to the San Diego River. These drainages contain bed-and-bank features and contribute flows to fish and wildlife habitat for at least a portion of the year, and therefore would be subject to regulation by CDFG as State Streambeds.

Impact Analysis

Construction of a 10-foot-wide trail along the proposed alignment would result in a total of 340 square feet of impacts to drainage features determined to be regulated as USACE WoUS, RWQCB WoS, and CDFG SS (Table 2). If a structural crossing is constructed at drainage feature #7, impacts to approximately 30 square feet would be avoided for a total impact of 310 square feet. Alternatively, if additional trail easements are obtained and the alternative trail alignment near drainage features 7 and 8 is constructed, impacts to a approximately 30 square feet of jurisdictional features would be avoided (for a total of 310 square feet of impacts) as the proposed crossing would occur downstream where features 7 and 8 merge into a single approximately 4-foot-wide feature.

Table 2: Impacts to Jurisdictional Features

Feature	USACE non-wetland WoUS/RWQCB WoS/CDFG SS (Linear ft/sq.ft.)		
	Proposed Alignment	Structural Crossing Alternative	Alternate Alignment
Drainage 1	10 ft/20 sq.ft.	10 ft/20 sq.ft.	10 ft/20 sq.ft.
Drainage 2	10 ft/30 sq.ft.	10 ft/30 sq.ft.	10 ft/ 30 sq.ft.
Drainage 3	10 ft/20 sq.ft.	10 ft/20 sq.ft.	10 ft/ 20 sq.ft.
Drainage 4	10 ft/30 sq.ft.	10 ft/30 sq.ft.	10 ft/30 sq.ft.
Drainage 5	10 ft/30 sq.ft.	10 ft/30 sq.ft.	10 ft/30 sq.ft.
Drainage 6	10 ft/30 sq.ft.	10 ft/30 sq.ft.	10 ft/30 sq.ft.
Drainage 7	10 ft/30 sq.ft.	0	0
Drainage 8	10 ft/40 sq.ft.	10 ft/40 sq.ft.	10 ft/40 sq.ft.
Drainage 9	10 ft/20 sq.ft.	10 ft/20 sq.ft.	10 ft/20 sq.ft.
Drainage 10	10 ft/20 sq.ft.	10 ft/20 sq.ft.	10 ft/20 sq.ft.
Drainage 11	10 ft/20 sq.ft.	10 ft/20 sq.ft.	10 ft/20 sq.ft.
Drainage 12	10 ft/50 sq.ft.	10 ft/50 sq.ft.	10 ft/50 sq.ft.
Total	120 ft./340 sq.ft. (0.008 acre)	110 ft./310 sq.ft. (0.007 acre)	110 ft./310 sq.ft. (0.007 acre)

Potential impacts to the identified drainage features may result from foot, bicycle, and equestrian-traffic associated with the use of the proposed trail in its finished condition, and may require a nationwide 404 permit from USACE, a CDFG section 1602 Streambed Alteration Agreement (SAA) from CDFG, and a Water Quality Waiver or 401 Certification from the RWQCB.

Since the drainage features within the project area lack wetland vegetation, the construction and presence of a trail through these features would not affect wetland vegetation; therefore, construction of the proposed trail would not result in the net loss of jurisdictional wetlands, and will not substantially alter the biological functions and values of the streambeds. The construction of the

trail will not alter the topography or hydrology of the streambed, and will allow for continued water flow through the area. Therefore, compensatory mitigation is not anticipated to be required.

Chapter 5
References

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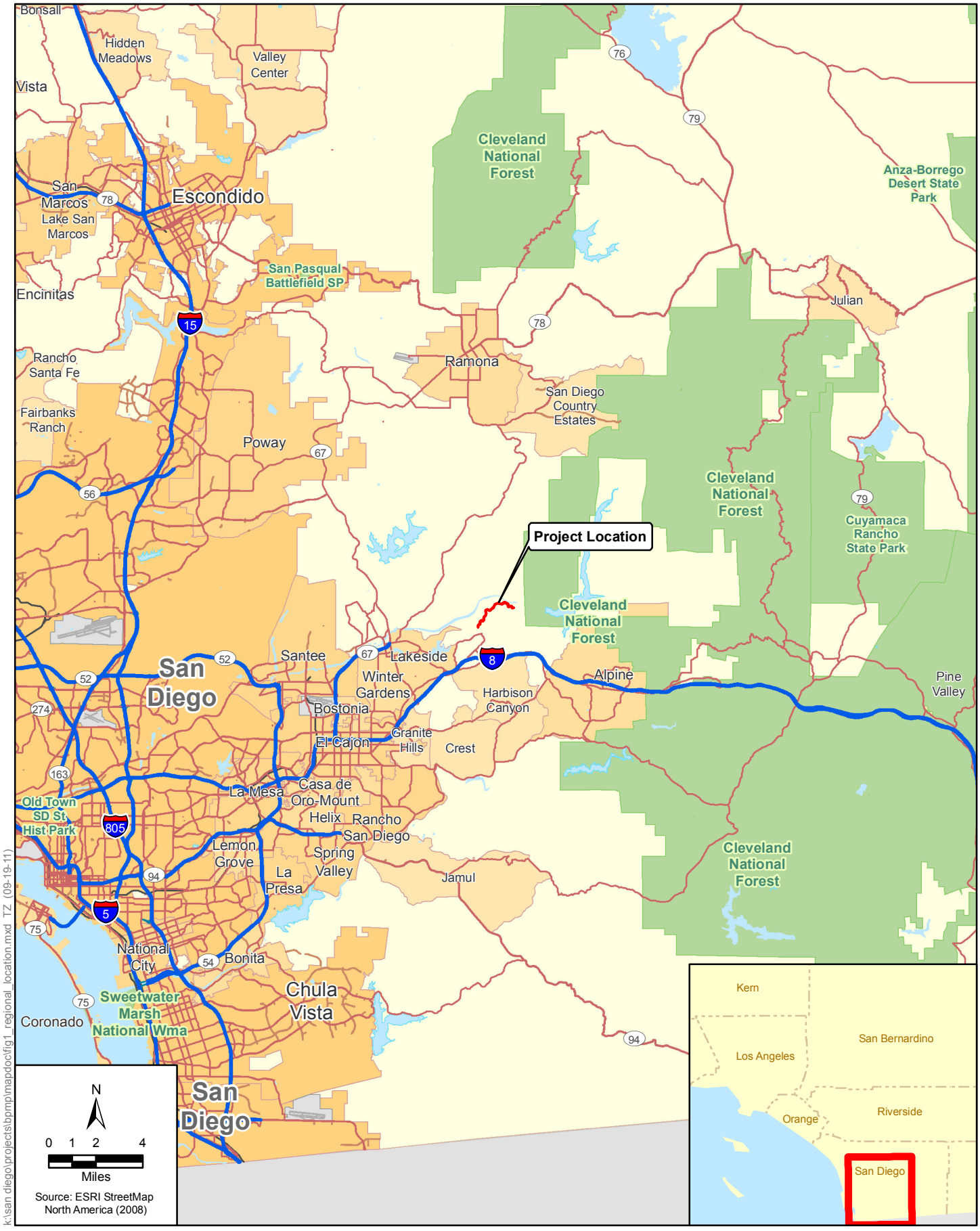
Appendix A
Figures



ICF INTERNATIONAL

Figure 1
Regional Location
County Department of Parks and Recreation Flume Trail

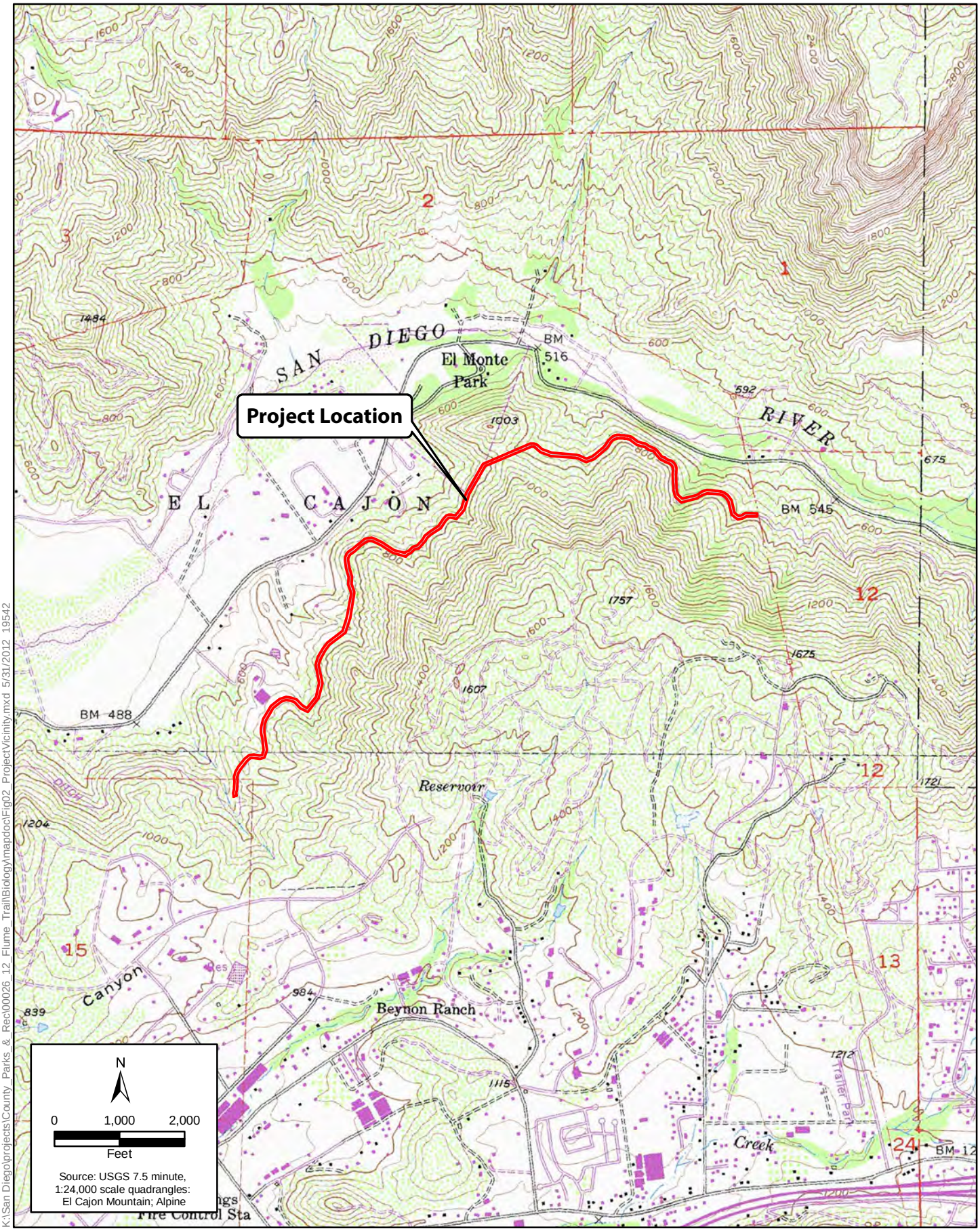


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Figure 2
Project Vicinity
County Department of Parks and Recreation Flume Trail

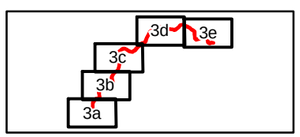

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Figure 3a
Vegetation Communities
County Department of Parks and Recreation Flume Trail

EL MONTE RD

Legend

- 50-ft Wide County-Owned Historic Flume Alignment
- 20-ft Trail Easement

Vegetation Communities

- 11000 Disturbed Habitat (DH)
- 12000 Urban/Developed (DEV)
- 18100 Agriculture (AG)
- 32501 Coastal Sage Scrub-Burned (CSS)
- 37120 Southern Mixed Chaparral (SMC)
- 37120 Southern Mixed Chaparral-Burned (SMC)
- 42200 Non-Native Grassland (NNG)
- 71160 Coast Live Oak Woodland (CLOW)

N

0 100 200 Feet

Source: ESRI Imagery, 2010.

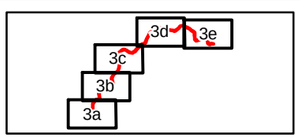

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Figure 3b
Vegetation Communities
County Department of Parks and Recreation Flume Trail

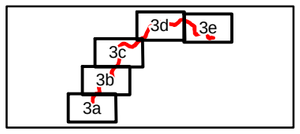

Figure 3c
Vegetation Communities
County Department of Parks and Recreation Flume Trail

EL MONTE RD

Legend

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

Vegetation Communities

11000 Disturbed Habitat (DH)

12000 Urban/Developed (DEV)

18100 Agriculture (AG)

32501 Coastal Sage Scrub-Burned (CSS)

37120 Southern Mixed Chaparral (SMC)

37120 Southern Mixed Chaparral-Burned (SMC)

42200 Non-Native Grassland (NNG)

71160 Coast Live Oak Woodland (CLOW)

N

0 100 200 Feet

Source: ESRI Imagery, 2010.

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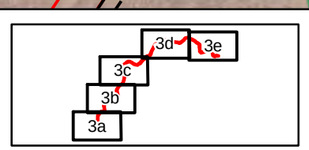
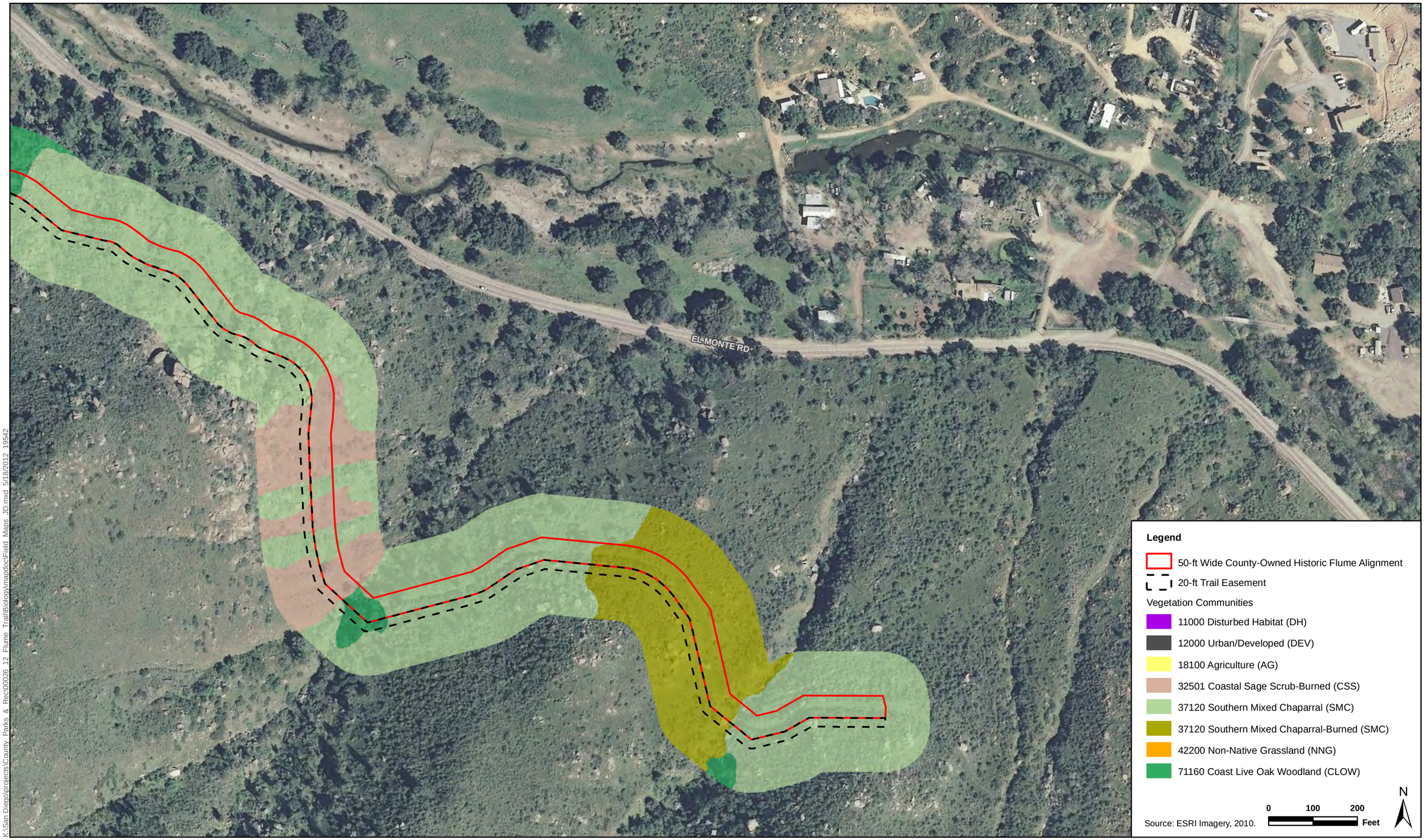


Figure 3d
Vegetation Communities
County Department of Parks and Recreation Flume Trail



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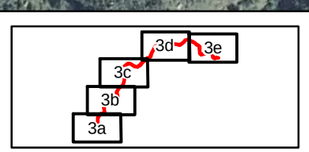

Figure 3e
Vegetation Communities
County Department of Parks and Recreation Flume Trail

Legend

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed

Source: ESRI Imagery, 2010.

Drainage Feature #1 (2 feet wide)

CIRCA VALLE VERDE

KINGFISHER CREEK RD

N

0 200 400

Feet

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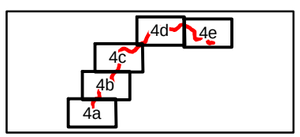

Figure 4a
Jurisdictional Delineation
County Department of Parks and Recreation Flume Trail

Legend

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed

Source: ESRI Imagery, 2010.

Drainage Feature #3 (2 feet wide)

Drainage Feature #2 (3 feet wide)

N

0 200 400

Feet

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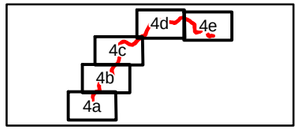


Figure 4b
Jurisdictional Delineation
County Department of Parks and Recreation Flume Trail

Legend

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed

Source: ESRI Imagery, 2010.

HAZY MEADOWS LN

EL MONTE RD

Drainage Feature #6 (3 feet wide)

Drainage Feature #5 (3 feet wide)

Drainage Feature #4 (3 feet wide)

N

0 200 400

Feet

K:\San Diego\projects\County Parks & Rec\00026 12 Flume Trail\Biology\mapdoc\Field Maps JD.mxd 5/18/2012 19542

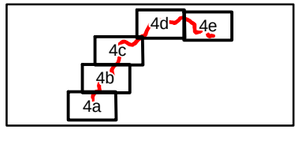


Figure 4c
Jurisdictional Delineation
County Department of Parks and Recreation Flume Trail

Legend

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed

Source: ESRI Imagery, 2010.

EL MONTE RD

Drainage Feature #9 (2 feet wide)

Drainage Feature #10 (2 feet wide)

Drainage Feature #8 (4 feet wide)

Drainage Feature #7 (3 feet wide)

N

0 200 400

Feet

K:\San Diego\projects\County Parks & Rec\00026 12 Flume Trail\Biology\mapdoc\Field Maps 3D.mxd 5/19/2012 19542

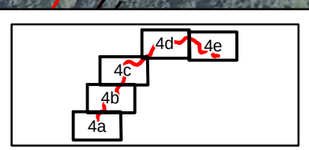


Figure 4d
Jurisdictional Delineation
County Department of Parks and Recreation Flume Trail

Legend

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed

Source: ESRI Imagery, 2010.

EL MONTE RD

Drainage Feature #11 (2 feet wide)

Drainage Feature #12 (5 feet wide)

N

0 200 400

Feet

K:\San Diego\projects\County Parks & Rec\00026 12 Flume Trail\Biology\mapdoc\Field Maps JD.mxd 5/18/2012 19542

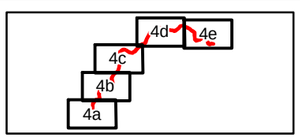


Figure 4e
Jurisdictional Delineation
County Department of Parks and Recreation Flume Trail

Appendix B
Feature Photographs

Photograph 1 Feature 1, view facing north.

Photograph 2 Feature 2, view facing east.

Photograph 3 Feature 3, view facing south.

Photograph 4 Feature 6, view facing northwest.

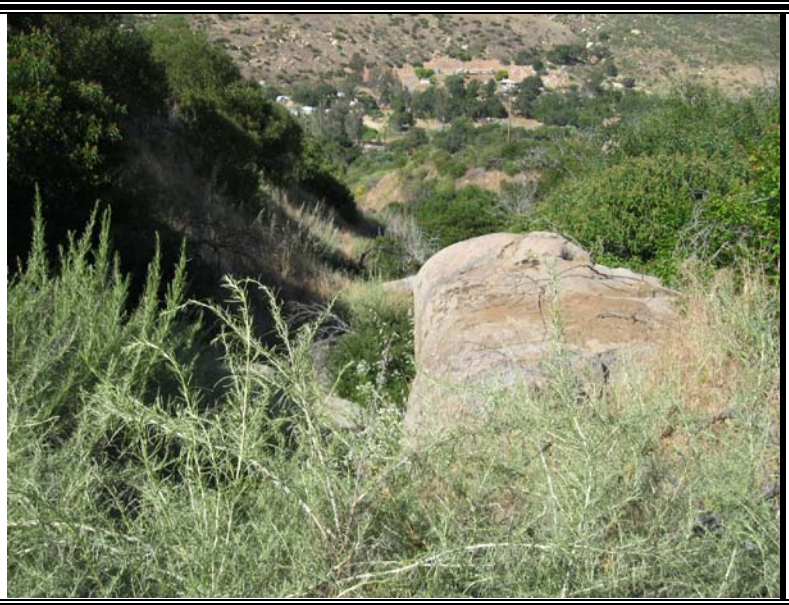
Photograph 5 Feature 7, view facing southeast.

Photograph 6 Feature 8, view facing northwest.

Photograph 7 Feature 9, view facing north.

Photograph 8 Feature 10, view facing south.

Photograph 9 Feature 11, view facing northeast.



Photograph 10 Feature 12, view facing northeast.

Photograph 11 Feature 12, view facing southwest.